

From: Ted Burgoin [mailto:ted@aerodesign.ca]
Sent: Wednesday, November 04, 2009 5:57 PM
To: Szelemej, Ihor
Cc: Ferguson, Robert; Wright, Fred
Subject: RE: DAR 290M - Audit availability

My plans for January appear to be set in concrete now.
I'll be back by 15th January.

I would like the week of the 18th to sort out business matters arising from the previous few weeks.

The week of 25th of January as we had discussed would work well for me and would like to start on Tuesday 26th January.

Ted.

-----Original Message-----

From: Szelemej, Ihor [mailto:ihor.szelemej@tc.gc.ca]
Sent: Tuesday, November 03, 2009 3:13 PM
To: Ted Burgoin
Cc: Ferguson, Robert; Wright, Fred
Subject: RE: DAR 290M - Audit availability

Mr. Burgoin:

Thank you for the reply.

If the week of Jan 18, 2010 is not suitable for you, perhaps the week of February 01, 2010 would be an option.

Regards

Ihor Szelemej
Regional Aircraft Certification Engineer
Telephone: (204) 984-5307
TTY/ ATS: (613) 990-4500
E-mail / Courriel: ihor.szelemej@tc.gc.ca Facsimile / Telecopieur: (204)
984-6021 Transport Canada: 344 Edmonton St., Winnipeg, Manitoba R3C 0P6 Government of
Canada / Gouvernement du Canada

-----Original Message-----

From: Ted Burgoin [mailto:ted@aerodesign.ca]
Sent: Tuesday, November 03, 2009 3:46 PM
To: Szelemej, Ihor
Cc: Ferguson, Robert; Wright, Fred
Subject: RE: DAR 290M - Audit availability

Ihor:

Sorry that I did not respond but I am still trying to firm up my arrangements for the first couple of weeks in January. That still hasn't come together.

We had talked about the week of January 25th.

Week of January 18th most likely is not acceptable. I expect that I'll just be getting back from being away for a couple of weeks then.
Should know what my plans are for January this week.

Ted.

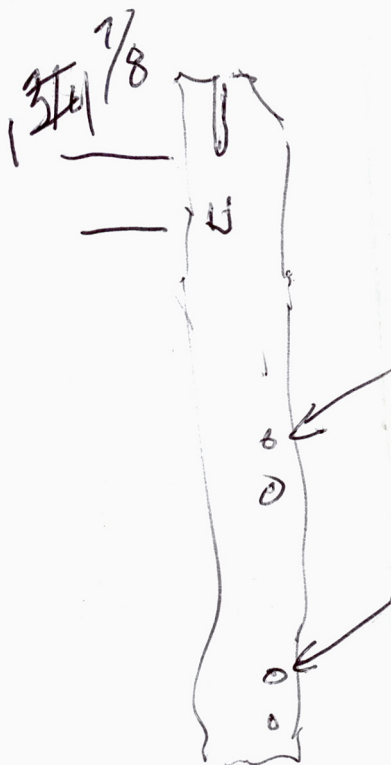
-----Original Message-----

From: Szelemej, Ihor [mailto:ihor.szelemej@tc.gc.ca]
Sent: Tuesday, November 03, 2009 2:40 PM
To: Ted Burgoin
Cc: Ferguson, Robert; Wright, Fred
Subject: RE: DAR 290M - Audit availability
Importance: High

0021 826 109 -
 - Richmond -
 1126 - 273 - 9211
 2507 2200

0080 0021 09
 604-720 0809
 5156-02-10 09
 604-970-9515
 5077 1000

m

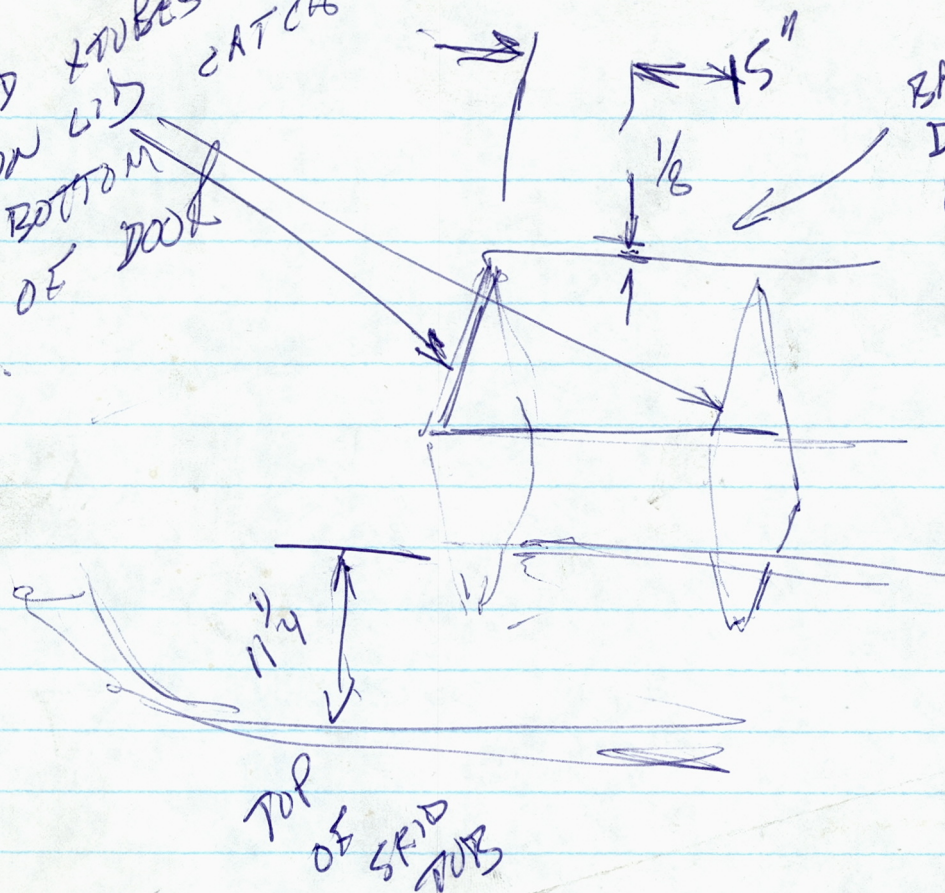


MOO AT ED
 49201-10
 JUNE 2004

60603-01



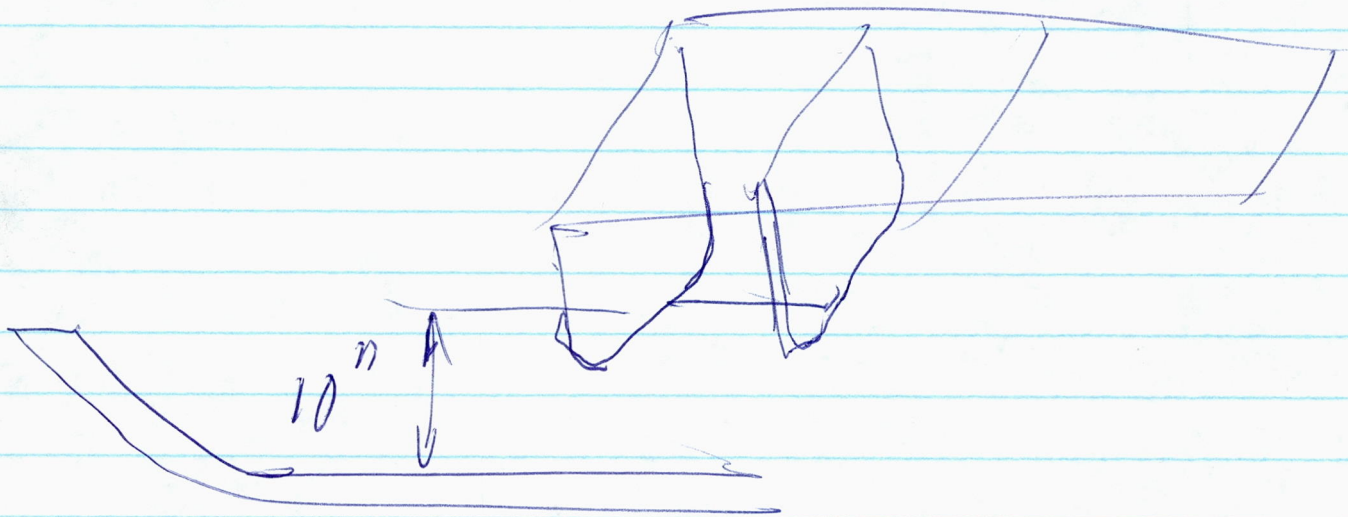
FWD TUBES
ON LID
BOTTOM
OF DOOR
CATCH



BACK OF
DOOR
WHEN
OPENS
DOOR MOVES OF
AS IT GOES
BACK.

HIGH
POSITION.

$\frac{3}{8}$ CLEARANCE WITH SWING OF BRAGGAGE
DOOR WITH BRACKET LID CLOSED

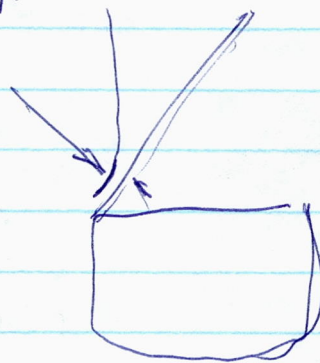


$\frac{3}{8}$ "

$\frac{1}{8}$ - $\frac{1}{4}$ INTERFERENCE

MID
POSITION

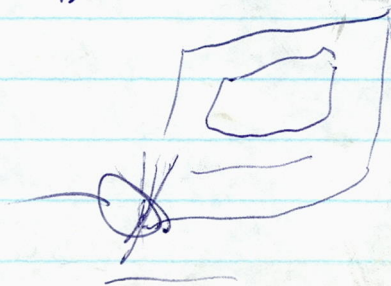
~~EXTRA WASHER
ON STUD~~



MOVE BUSHING
OUT $\frac{1}{4}$ "

FRONT EDGE OF DOOR
FWD LID XTUBE ONLY

LONG ~~BASK~~ BASKET
ONLY



AS350 Short 34.5 ± 0.3 34.8 1b calculated
~~34.5~~ ~~34.8~~ ~~34.2~~

Short w/ cut out 34.5 1b.

w/ cut out / lid step 38.5 1b

w/ lid step 38.8 1b.

Med w/ cut out 45.0 1b

Med \times $45.0 \pm 0.3 = 45.3$ 1b. calculated

Med w/ lid step + cut out 52.4 1b

Med w/ lid step 52.7 1b Calculated

Long 57.5 1b.

long w/ walkway. 64.2

— no cutout —

407 Low QR 45.0

Low QR w/ cut out + lid step 50.8

Low QR w/ cutout 45.6

Low QR w/ lid step 50.2 Calculated.

407 long Full step / Aux latch 65.8

heavy wall handle.

206 B Short No Mods 31.2

Med No Mods 42.0

Long Basket 29.6

LID 18.0

47.6

AS350 long fixed Step

8.6 lb

Short fixed Step

6.8 lb

Bolt on peg step

0.2 lb

AR Mainf Step

6.2 lb

Mid beam (Pair)

7.2 lb

7.6 lb w/step

206L/407

Low Beam Fwd
Aft

9.2

8.8

High Beam Fwd
Aft

12

11.6

Check lateral position on AS350 Baskets

~~low~~ ~~high~~
Med 48.6 low
46.3 high

Small 49.2 low
47.0 high

Long 48.4 low
46.1 high

low beam 5.6 lb pair

High 8.6 lb

206B Fwd
Aft

9.6

9.2



U.S. Department
of Transportation
**Federal Aviation
Administration**

Engine & Propeller Directorate

New York Aircraft Certification Office
1600 Stewart Avenue
4th Floor, Suite 410
Westbury, NY 11590
(516) 228-7300, Fax: (516) 794-5531

MAR 05 2009

Mr. J. Staal
Aircraft Certification Engineering Technologist
Transport Canada, Prairie and Northern Region (RAED)
1100-9700 Jasper Avenue
Edmonton, Alberta T5J 4E6
Canada

Subject: Issuance of Supplemental Type Certificate (STC) SR02680NY

Dear Mr. Staal:

This is in reference to your request dated September 30, 2008 (TCCA File Ref. C-08-0784) for the issuance of a Supplemental Type Certificate (STC), under terms of the US/Canada Bilateral Aviation Safety Agreement (BASA) for the Installation of External Attachment Provisions and Cargo Basket to AERO Design Ltd on Eurocopter France AS 350 B, B1, B2, B3, BA, D, D1 and AS 355 E, F, F1, F2, N, NP model aircraft. The corresponding FAA Project Number is ST6178NY-R (TCCA STC SH08-16, Issue No.1, approved April 11, 2008; issued April 11, 2008).

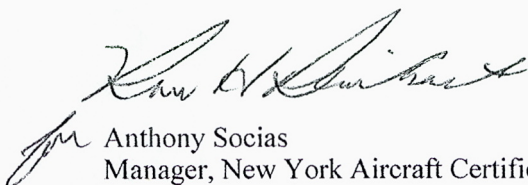
We have reviewed the information submitted by your office. In accordance with the current US/Canada Bilateral Aviation Safety Agreement, we have enclosed STC SR02680NY, issued February 25, 2009.

In accordance with the US/Canada bilateral relationship using TCCA compliance to the maximum extent, this STC includes references to documents that include the words "or later TCCA approved/accepted revisions." It is expected that as State of Design responsible for the STC, TCCA will coordinate any major/significant changes, as deemed appropriate, with the FAA prior to TCCA approval/acceptance.

Please forward the enclosed STC and a copy of "Information Concerning Your Responsibility as a Holder of a Supplemental Type Certificate Issued to a Canadian Applicant" to AERO Design Ltd. A copy of the STC and required documents should accompany each installation. Also, your attention is directed to the limitations and conditions specified in the STC.

If you have any questions relating to the above information, please contact Mr. Stephen Kowalski at (516) 228-7327.

Sincerely,



Anthony Socias
Manager, New York Aircraft Certification Office

Enclosures

**NEW ENGLAND REGION
NEW YORK AIRCRAFT CERTIFICATION OFFICE
1600 STEWART AVENUE, SUITE 410
WESTBURY, NEW YORK 11590**

**INFORMATION CONCERNING YOUR RESPONSIBILITY AS HOLDER OF A
SUPPLEMENTAL TYPE CERTIFICATE ISSUED TO A CANADIAN APPLICANT**

This STC is official indications of FAA approval of your installation and may be used to authorize identical installation on other aircraft of the same model, subject to the limitation noted in the STC. It may be transferred, or otherwise made available to another party by means of a licensee arrangement; however, you are requested to advise this office when you transfer or grant licensee rights to the STC in order that we may take the necessary recording or reissuance action.

If you plan to manufacture and sell parts for installation on type certificated aircraft, please review FAR 21.502, which is applicable to parts imported into the U.S.

A copy of the STC and required documents should accompany each kit and installation. Also, your attention is directed to the limitations and conditions specified in the STC.

As recipient of this approval, except as provided in FAR21.3(d), you are required to report any failure, malfunction, or defect in any product or part manufactured by you that you have determined has resulted or could result in any of the occurrences listed in FAR 21.3(c).

The report should be communicated initially by telephone and subsequently in writing to the Manager, New York Aircraft Certification Office, telephone (516) 228-7300, mailing address: 1600 Stewart Avenue, Suite 410, Westbury, New York 11590. This first contact should take place within 24 hours after it has been determined that the failure required to be reported has occurred.

FAA Form 8010-4, Malfunction or Defect Report, or any other appropriate format is acceptable in transmitting the required details.



Anthony Socias
Manager,
New York Aircraft Certification Office

United States of America
Department of Transportation -- Federal Aviation Administration

Supplemental Type Certificate

IMPORT

Number SR02680NY

This certificate issued to Aero Design Ltd.
2013 - 39th Avenue NE
Calgary, Alberta, Canada
T2E 6R7

*certifies that the change in the type design for the following product with the limitations and conditions therefor as specified hereon meets the airworthiness requirements of Part * of the *. Regulations.*

*Original Product . . . Type Certificate Number: ** *See attached FAA Approved Model List (AML) No. SR02680NY for the list of approved aircraft models and applicable airworthiness regulations.

*Make: **

*Model: **

Description of Type Design Change:

The installation of External Attachment Provisions and Cargo Basket to be done in accordance with AERO Design Ltd. Document Control List as listed on AML SR02680NY or later Transport Canada approved revision.

Limitations and Conditions:

1. Operation must be in accordance with Aircraft Flight Manual Supplement, FMS 764.91 Revision 0 dated February 25, 2008, Transport Canada approved April 11, 2008, or later Transport Canada approved revision.
2. Instructions for Continued Airworthiness described in AERO Design Ltd. Instructions for Continued Airworthiness ICA 764.90, Revision 0 dated February 25, 2008, or later Transport Canada accepted revisions are required for this installation.
3. The Installer must determine whether this design change is compatible with previously approved modifications.
4. If the holder agrees to permit another person to use the certificate to alter a product, the holder must give the other person written evidence of that permission.

This certificate and the supporting data which is the basis for approval shall remain in effect until surrendered, suspended, revoked or a termination date is otherwise established by the Administrator of the Federal Aviation Administration.

Date of application: September 16, 2008

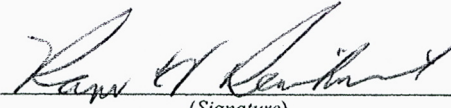
Date reissued:

Date of issuance: February 25, 2009

Date amended:



By direction of the Administrator

for 
(Signature)
Anthony Socias
Manager
New York Aircraft Certification Office

(Title)

Any alteration of this certificate is punishable by a fine of not exceeding \$1,000, or imprisonment not exceeding 3 years, or both.

FAA APPROVED MODEL LIST (AML) NO. SR02680NY
AERO DESIGN LTD.
FOR
INSTALLATION OF EXTERNAL ATTACHMENT PROVISIONS AND CARGO BASKET

Original Issue Date: February 25, 2009

ITEM	PART	REGULATION	MAKE	MODEL	TCDS	CONFIGURATION			REQUIRED DOCUMENTATION		AML AMEND- MENT DATE
						DESIG- NATION	DESCRIPTION	DOCUMENT CONTROL LIST	INSTRUCTIONS for CONTINUED AIRWORTHINESS	FLIGHT MANUAL SUPPLEMENT	
1	27	Federal Aviation	Eurocopter France	AS 350 B, B1, B2, B3, BA, D, D1	H9EU	A	External Attachment Provisions Only: External Attachment Provisions installed in accordance with DCL786-1 may remain installed if the basket installation is removed.	Aero Design Ltd. Document Control List DCL786-1, Revision 0, dated March 6, 2008 or later Transport Canada approved revision.	Aero Design Ltd. ICA 764.90, Rev. 0, dated February 25, 2008, or later Transport Canada accepted revision.	Aero Design Ltd. FMS 764.91, Rev. 0, dated February 25, 2008, Transport Canada approved April 11, 2008, or later Transport Canada approved revision.	
2				AS 355 E, F, F1, F2, N, NP	H11EU						
1, continued				AS 350 B, B1, B2, B3, BA, D, D1	H9EU	B	External Cargo Basket (Short Basket): Installation of Configuration A, External Attachment Provisions, is a prerequisite for installation of Configuration B, External Cargo Basket Installation.	Aero Design Ltd. Document Control List DCL776-1, Revision 0, dated March 6, 2008 or later Transport Canada approved revision.			
2, continued				AS 355 E, F, F1, F2, N, NP	H11EU						

FAA APPROVED MODEL LIST (AML) NO. SR02680NY
AERO DESIGN LTD.
FOR
INSTALLATION OF EXTERNAL ATTACHMENT PROVISIONS AND CARGO BASKET

ITEM	PART	REGULATION	MAKE	MODEL	TCDS	CONFIGURATION			REQUIRED DOCUMENTATION		AML AMEND- MENT DATE
						DESIG- NATION	DESCRIPTION	DOCUMENT CONTROL LIST	INSTRUCTIONS for CONTINUED AIRWORTHINESS	FLIGHT MANUAL SUPPLEMENT	
1, continued	27	Federal Aviation	Eurocopter France	AS 350 B, B1, B2, B3, BA, D, D1	H9EU	C	External Cargo Basket (Short Basket- Alternate): Installation of Configuration A, External Attachment Provisions, is a prerequisite for installation of Configuration C, External Cargo Basket Installation.	Aero Design Ltd. Document Control List DCL776-2, Revision 0, dated March 6, 2008 or later Transport Canada approved revision.	Aero Design Ltd. ICA 764.90, Rev. 0, dated February 25, 2008, or later Transport Canada accepted revision.	Aero Design Ltd. FMS 764.91, Rev. 0, dated February 25, 2008, Transport Canada approved April 11, 2008, or later Transport Canada approved revision.	
2, continued				AS 355 E, F, F1, F2, N, NP	H11EU						
1, continued				AS 350 B, B1, B2, B3, BA, D, D1	H9EU	D	External Cargo Basket (Medium Basket): Installation of Configuration A, External Attachment Provisions, is a prerequisite for installation of Configuration D, External Cargo Basket Installation.	Aero Design Ltd. Document Control List DCL764-1, Revision 0, dated March 6, 2008 or later Transport Canada approved revision.			
2, continued				AS 355 E, F, F1, F2, N, NP	H11EU						

FAA APPROVED MODEL LIST (AML) NO. SR02680NY
AERO DESIGN LTD.
FOR
INSTALLATION OF EXTERNAL ATTACHMENT PROVISIONS AND CARGO BASKET

ITEM	PART	REGULATION	MAKE	MODEL	TCDS	CONFIGURATION			REQUIRED DOCUMENTATION		AML AMEND- MENT DATE
						DESIG- NATION	DESCRIPTION	DOCUMENT CONTROL LIST	INSTRUCTIONS for CONTINUED AIRWORTHINESS	FLIGHT MANUAL SUPPLEMENT	
1, continued	27	Federal Aviation	Eurocopter France	AS 350 B, B1, B2, B3, BA, D, D1	H9EU	E	External Cargo Basket (Long Basket): Installation of Configuration A, External Attachment Provisions, is a prerequisite for installation of Configuration E, External Cargo Basket Installation.	Aero Design Ltd. Document Control List DCL784-1, Revision 0, dated March 6, 2008 or later Transport Canada approved revision.	Aero Design Ltd. ICA 764.90, Rev. 0, dated February 25, 2008, or later Transport Canada accepted revision.	Aero Design Ltd. FMS 764.91, Rev. 0, dated February 25, 2008, Transport Canada approved April 11, 2008, or later Transport Canada approved revision.	
2, continued				AS 355 E, F, F1, F2, N, NP	H11EU						
1, continued				AS 350 B, B1, B2, B3, BA, D, D1	H9EU	F	External Cargo Basket (Long Basket- Alternate): Installation of Configuration A, External Attachment Provisions, is a prerequisite for installation of Configuration F, External Cargo Basket Installation.	Aero Design Ltd. Document Control List DCL784-2, Revision 0, dated March 6, 2008 or later Transport Canada approved revision.			
2, continued				AS 355 E, F, F1, F2, N, NP	H11EU						

FAA APPROVED MODEL LIST (AML) NO. SR02680NY
AERO DESIGN LTD.
FOR
INSTALLATION OF EXTERNAL ATTACHMENT PROVISIONS AND CARGO BASKET

ITEM	PART	REGULATION	MAKE	MODEL	TCDS	CONFIGURATION			REQUIRED DOCUMENTATION		AML AMEND- MENT DATE
						DESIG- NATION	DESCRIPTION	DOCUMENT CONTROL LIST	INSTRUCTIONS for CONTINUED AIRWORTHINESS	FLIGHT MANUAL SUPPLEMENT	
1, continued	27	Federal Aviation	Eurocopter France	AS 350 B, B1, B2, B3, BA, D, D1	H9EU	Cargo Basket Modification	Modifications to the Cargo Basket configurations are eligible in accordance with Document Control List.	Aero Design Ltd. Document Control List DCL704, Revision 2, dated March 19, 2008 or later Transport Canada approved revision.	Aero Design Ltd. ICA 764.90, Rev. 0, dated February 25, 2008, or later Transport Canada accepted revision.	Aero Design Ltd. FMS 764.91, Rev. 0, dated February 25, 2008, Transport Canada approved April 11, 2008, or later Transport Canada approved revision.	
2, continued				AS 355 E, F, F1, F2, N, NP	H11EU						

FAA Approved: _____

Anthony Socias
Anthony Socias
Manager,

New York Aircraft Certification Office



Transport
Canada

Transports
Canada

1100-9700 Jasper Avenue
Edmonton, Alberta T5J 4E6

Your file Votre référence

March 19, 2009

Our file Notre référence
C-08-0784
SH08-16

Aero Design Ltd.
2013 - 39th Avenue N.E.
Calgary, Alberta
Canada, T2E 6R7

ATTENTION: TED BURGOIN

Dear Sirs:

SUBJECT:	Approval of	Installation of External Attachment Provisions
		and Cargo Basket.
	FAA STC:	SR02680NY
	Aircraft:	EUROCOPTER AS 350 B, AS 350 B1, AS 350
		B2, AS 350 B3, AS 350 BA, AS 350 D, AS 350
		D1,
		EUROCOPTER FRANCE AS 355 E, AS 355 F,
		AS 355 F1, AS 355 F2, AS 355 N, AS 355 NP
	FAA STC Holder:	Aero Design Ltd.

Enclosed is the original FAA Supplemental Type Certificate and information concerning your responsibility as a holder of a Supplemental Type Certificate SR02680NY issued to a Canadian Applicant.

This FAA STC is based on Issue 1 of Canadian STC SH08-16.

Yours truly,

J. Staal
Aircraft Certification Engineering Technologist
Prairie and Northern Region
Phone: 780-495-5227
Facs: 780-495-7963

Encl.

United States of America
Department of Transportation -- Federal Aviation Administration

Supplemental Type Certificate

IMPORT

Number SR02680NY

This certificate issued to Aero Design Ltd.
2013 - 39th Avenue NE
Calgary, Alberta, Canada
T2E 6R7

*certifies that the change in the type design for the following product with the limitations and conditions therefor as specified hereon meets the airworthiness requirements of Part * of the * Regulations.*

*Original Product - Type Certificate Number: **

*See attached FAA Approved Model List (AML) No. SR02680NY for the list of approved aircraft models and applicable airworthiness regulations.

*Make: **

*Model: **

Description of Type Design Change:

The installation of External Attachment Provisions and Cargo Basket to be done in accordance with AERO Design Ltd. Document Control List as listed on AML SR02680NY or later Transport Canada approved revision.

Limitations and Conditions:

1. Operation must be in accordance with Aircraft Flight Manual Supplement, FMS 764.91 Revision 0 dated February 25, 2008, Transport Canada approved April 11, 2008, or later Transport Canada approved revision.
2. Instructions for Continued Airworthiness described in AERO Design Ltd. Instructions for Continued Airworthiness ICA 764.90, Revision 0 dated February 25, 2008, or later Transport Canada accepted revisions are required for this installation.
3. The Installer must determine whether this design change is compatible with previously approved modifications.
4. If the holder agrees to permit another person to use the certificate to alter a product, the holder must give the other person written evidence of that permission.

This certificate and the supporting data which is the basis for approval shall remain in effect until surrendered, suspended, revoked or a termination date is otherwise established by the Administrator of the Federal Aviation Administration.

Date of application: September 16, 2008

Date reissued:

Date of issuance: February 25, 2009

Date amended:



By direction of the Administrator

for 
(Signature)

Anthony Socias
Manager
New York Aircraft Certification Office

(Title)

Any alteration of this certificate is punishable by a fine of not exceeding \$1,000, or imprisonment not exceeding 3 years, or both.

FAA APPROVED MODEL LIST (AML) NO. SR02680NY
AERO DESIGN LTD.

FOR
INSTALLATION OF EXTERNAL ATTACHMENT PROVISIONS AND CARGO BASKET

Original Issue Date: February 25, 2009

ITEM	PART	REGULATION	MAKE	MODEL	TCDS	CONFIGURATION			REQUIRED DOCUMENTATION		AML AMEND- MENT DATE
						DESIG- NATION	DESCRIPTION	DOCUMENT CONTROL LIST	INSTRUCTIONS for CONTINUED AIRWORTHINESS	FLIGHT MANUAL SUPPLEMENT	
1	27	Federal Aviation	Eurocopter France	AS 350 B, B1, B2, B3, BA, D, D1	H9EU	A	External Attachment Provisions Only: External Attachment Provisions installed in accordance with DCL786-1 may remain installed if the basket installation is removed.	Aero Design Ltd. Document Control List DCL786-1, Revision 0, dated March 6, 2008 or later Transport Canada approved revision.	Aero Design Ltd. ICA 764.90, Rev. 0, dated February 25, 2008, or later Transport Canada accepted revision.	Aero Design Ltd. FMS 764.91, Rev. 0, dated February 25, 2008, Transport Canada approved April 11, 2008, or later Transport Canada approved revision.	
2				AS 355 E, F, F1, F2, N, NP	H11EU						
1, continued				AS 350 B, B1, B2, B3, BA, D, D1	H9EU	B	External Cargo Basket (Short Basket): Installation of Configuration A, External Attachment Provisions, is a prerequisite for installation of Configuration B, External Cargo Basket Installation.	Aero Design Ltd. Document Control List DCL776-1, Revision 0, dated March 6, 2008 or later Transport Canada approved revision.			
2, continued				AS 355 E, F, F1, F2, N, NP	H11EU						

FAA APPROVED MODEL LIST (AML) NO. SR02680NY
AERO DESIGN LTD.

FOR
INSTALLATION OF EXTERNAL ATTACHMENT PROVISIONS AND CARGO BASKET

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						DESIG- NATION	DESCRIPTION	DOCUMENT CONTROL LIST	INSTRUCTIONS for CONTINUED AIRWORTHINESS	FLIGHT MANUAL SUPPLEMENT	
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1, continued				AS 350 B, B1, B2, B3, BA, D, D1	H9EU	D	External Cargo Basket (Medium Basket): Installation of Configuration A, External Attachment Provisions, is a prerequisite for installation of Configuration D, External Cargo Basket Installation.	Aero Design Ltd. Document Control List DCL764-1, Revision 0, dated March 6, 2008 or later Transport Canada approved revision.			
2, continued				AS 355 E, F, F1, F2, N, NP	H11EU						

FAA APPROVED MODEL LIST (AML) NO. SR02680NY
AERO DESIGN LTD.

FOR
INSTALLATION OF EXTERNAL ATTACHMENT PROVISIONS AND CARGO BASKET

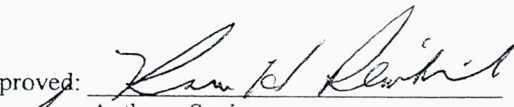
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						DESIG- NATION	DESCRIPTION	DOCUMENT CONTROL LIST	INSTRUCTIONS for CONTINUED AIRWORTHINESS	FLIGHT MANUAL SUPPLEMENT	
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2, continued				AS 355 E, F, F1, F2, N, NP	H11EU						
1, continued				AS 350 B, B1, B2, B3, BA, D, D1	H9EU	F	External Cargo Basket (Long Basket- Alternate): Installation of Configuration A, External Attachment Provisions, is a prerequisite for installation of Configuration F, External Cargo Basket Installation.	Aero Design Ltd. Document Control List DCL784-2, Revision 0, dated March 6, 2008 or later Transport Canada approved revision.			
2, continued				AS 355 E, F, F1, F2, N, NP	H11EU						

FAA APPROVED MODEL LIST (AML) NO. SR02680NY
AERO DESIGN LTD.

FOR
INSTALLATION OF EXTERNAL ATTACHMENT PROVISIONS AND CARGO BASKET

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						DESIG- NATION	DESCRIPTION	DOCUMENT CONTROL LIST	INSTRUCTIONS for CONTINUED AIRWORTHINESS	FLIGHT MANUAL SUPPLEMENT	
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2, continued				AS 355 E, F, F1, F2, N, NP	H11EU						

FAA Approved:


Anthony Socias
Manager,
New York Aircraft Certification Office

**NEW ENGLAND REGION
NEW YORK AIRCRAFT CERTIFICATION OFFICE
1600 STEWART AVENUE, SUITE 410
WESTBURY, NEW YORK 11590**

**INFORMATION CONCERNING YOUR RESPONSIBILITY AS HOLDER OF A
SUPPLEMENTAL TYPE CERTIFICATE ISSUED TO A CANADIAN APPLICANT**

This STC is official indications of FAA approval of your installation and may be used to authorize identical installation on other aircraft of the same model, subject to the limitation noted in the STC. It may be transferred, or otherwise made available to another party by means of a licensee arrangement; however, you are requested to advise this office when you transfer or grant licensee rights to the STC in order that we may take the necessary recording or reissuance action.

If you plan to manufacture and sell parts for installation on type certificated aircraft, please review FAR 21.502, which is applicable to parts imported into the U.S.

A copy of the STC and required documents should accompany each kit and installation. Also, your attention is directed to the limitations and conditions specified in the STC.

As recipient of this approval, except as provided in FAR21.3(d), you are required to report any failure, malfunction, or defect in any product or part manufactured by you that you have determined has resulted or could result in any of the occurrences listed in FAR 21.3(c).

The report should be communicated initially by telephone and subsequently in writing to the Manager, New York Aircraft Certification Office, telephone (516) 228-7300, mailing address: 1600 Stewart Avenue, Suite 410, Westbury, New York 11590. This first contact should take place within 24 hours after it has been determined that the failure required to be reported has occurred.

FAA Form 8010-4, Malfunction or Defect Report, or any other appropriate format is acceptable in transmitting the required details.



Anthony Socias
Manager,
New York Aircraft Certification Office

MODIFICATION APPROVAL REQUEST APPLICATION FORM

MOD751, Rev. 0

1. NAME AND ADDRESS OF APPLICANT:		2. IDENTIFICATION OF PRODUCT				
AERO Design Ltd. 2013 - 39th Avenue NE Calgary, Alberta, Canada T2E 6R7		MAKE: Eurocopter		MODEL: AS350 (all models) AS355 (all models)		
ALL CORRESPONDANCE TO: AERO Design Ltd. 2013 - 39th Avenue NE Calgary, Alberta T2E 6R7		SERIAL No.: All eligible		REGISTRATION: All eligible		
3. REQUEST FOR:						
A. SUPPLEMENTAL TYPE CERTIFICATE (STC)		<input type="checkbox"/>				
B. STC/STA REVISION		<input type="checkbox"/> STC/STA No.				
C. LIMITED SUPPLEMENTAL TYPE CERTIFICATE (LSTC)		<input type="checkbox"/>				
D. LIMITED STC/STA REVISION		<input type="checkbox"/> LSTC/LSTA No.				
E. F.A.A. SUPPLEMENTAL TYPE CERTIFICATE		<input checked="" type="checkbox"/>				
F. F.A.A. STC REVISION		<input type="checkbox"/> STC No.				
G. FAMILIARIZATION OF F.A.A. STC		<input type="checkbox"/> STC No.				
H. REPAIR DESIGN APPROVAL (RDC)		<input type="checkbox"/>				
I. PARTS DESIGN APPROVAL (PDA)		<input type="checkbox"/>				
4. TITLE OF MODIFICATION OR REPAIR: Quick Release Cargo Basket Installation						
5. BRIEF DESCRIPTION OF MODIFICATION OR REPAIR: Installation of Cargo Basket on side of the helicopter. Provisions for basket clamp to the landing gear legs. Cargo basket mounts to provisions.						
6. APPLICABLE TYPE APPROVAL (TA) OR TYPE CERTIFICATE (TC) DOCUMENTS:						
A. TA NO. H-83/H-87 B. TC No. C. OTHER						
7. PROPOSED BASIS OF APPROVAL:						
A. SAME AS TA <input checked="" type="checkbox"/> B. SAME AS TC <input type="checkbox"/> C. OTHER <input type="checkbox"/> (Please specify)						
8. DOCUMENTATION CHECKLIST		REQUIRED		FOR DOT USE ONLY		
				RECEIVED		
		YES	NO	YES	NO	DATE
COMPLIANCE PROGRAM		X				
MASTER DRAWING LIST		X				
FLIGHT MANUAL SUPPLEMENT		X				
MAINTENANCE MANUAL SUPPLEMENT			X			
INSTRUCTIONS FOR CONTINUING AIRWORTHINESS		X				
ENGINEERING REPORTS		X				
DESIGN DRAWINGS			X			
MANUFACTURE DRAWINGS & INSTALLATION INSTRUCTIONS		X				
ELECTRICAL LOAD ANALYSIS			X			
DRAFT STC, LSTC OR RDA			X			
WEIGHT AND MOMENT CHANGE		X				
FLIGHT TEST DATA		X				
OTHER (Specify)			X			
9. APPLICANT'S REMARKS: STC based on Transport Canada STC # SH06-16						
10. In addition to the payment of Aircraft Certification approval fees as prescribed in Canadian Aviation Regulations (CAR) Section 104, I agree to reimburse Transport Canada incremental expenses as in Aviation Regulation Directive No. 3, or equivalent, as applicable. For further details governing cost recovery, refer to AMA 513/4.						
AERO Design Ltd.						
PER:		Consultant		16 September, 2008		
SIGNATURE OF APPLICANTS		TITLE		DATE		
11.						
				20 Sept 2008		
SIGNATURE OF REGIONAL ENGINEER				DATE		

15 September, 2008

Transport Canada
Aircraft Certification Division
800-1601 Airport Road
Calgary, Alberta
T2E 6Z8

Attn: Jack Staal

TCCA File : SH08-16

Re: FAA STC Application for Eurocopter AS350/AS355 series Cargo Baskets

Jack,

Please forward the following documents to the appropriate office of the FAA:

FAA STC Application Form	8110.12	
Modification Approval Request Application Form	MOD764	Rev. 0
Supplemental Type Certificate (copy)	SH08-16	Issue 1
Compliance Program	CP764	Rev. 0
Instructions for Continued Airworthiness	ICA 764-90	Rev. 0
Flight Manual Supplement	FMS 764-91	Rev. 0
Document Control List (A - Provisions only)	DCL786-1	Rev. 0
Installation Drawing	78601	Rev. 0
Document Control List (B – Short Basket)	DCL776-1	Rev. 0
Installation Drawing	77601	Rev. 0
Document Control List (C – Short Basket - Alternate)	DCL776-2	Rev. 0
Installation Drawing	77602	Rev. 0
Document Control List (D – Medium Length Basket)	DCL764-1	Rev. 0
Installation Drawing	76401	Rev. 0
Document Control List (E – Long Basket)	DCL784-1	Rev. 0
Installation Drawing	78401	Rev. 0
Document Control List (F – Long Basket - Alternate)	DCL784-2	Rev. 0
Installation Drawing	78402	Rev. 0
Document Control List (Basket Modifications)	DCL704	Rev. 2
Document Control List (Provision Assemblies)	DCL786-3	Rev. 0
Document Control List (Short Cargo Basket Assembly)	DCL776-3	Rev. 0
Document Control List (Med. Cargo Basket Assembly)	DCL764-3	Rev. 0
Document Control List (Long Cargo Basket Assembly)	DCL784-3	Rev. 0

(continued...)

AERO DESIGN LTD.

2013 – 39 Avenue N.E., Calgary, Alberta, T2E 6R7

Tel: 403-250-8027

Fax: 403-250-8333

www.aerodesign.ca

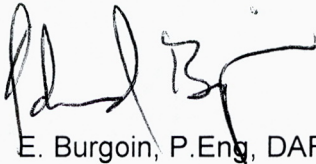
Engineering Report
Engineering Report
Load Test Report
Flight Test Plan and Report

ER 704.02	Rev. 0
ER 764.01	Rev. 0
TR 764.02	Rev. 0
FTP 764.03	Rev. 0

The following drawings detail the fabrication of parts and sub-assemblies. They have been approved by Transport Canada, but are not included in this package. They can be made available if the FAA NYACO requests them.

78620	78427	76410	70403	49212	36255	36275
78630	78428	76411	70405	49213	36261	36277
78631	77610	76421	70406	49215	36262	36278
	77611	76422		49216	36271	36280
78410	77612	76423	69812		36272	
78411	77627		69823		36273	
78412	77628	70402	69824		36274	

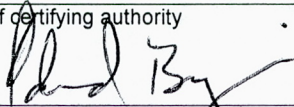
Regards,



E. Burgoin, P.Eng, DAR 290M


Encl.

No certificate may be issued unless a completed application form has been received.

U.S DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION		FORM APPROVED O.M.B. No. 04-R0078
APPLICATION FOR TYPE CERTIFICATE, PRODUCTION CERTIFICATE, OR SUPPLEMENTAL TYPE CERTIFICATE		
1. Name and address of applicant AERO Design Ltd. 2013 - 39 th Avenue NE Calgary, Alberta, Canada T2E 6R7	2. Application made for: <input type="checkbox"/> Type Certificate <input type="checkbox"/> Production Certificate <input checked="" type="checkbox"/> Supplemental Type Certificate	3. Product involved: <input checked="" type="checkbox"/> Aircraft <input type="checkbox"/> Engine <input type="checkbox"/> Propeller
4. TYPE CERTIFICATE (Complete item 4a below)		
a. Model designation(s) (All models listed are to be completely described in the required technical data, including drawings representing the design, material specifications, construction and performance of the aircraft, aircraft engine propeller which is the subject of this application.		
5. PRODUCTION CERTIFICATE (Complete items 5a - c below. Submit with this form in manual form one copy of quality control data or changes thereto covering new products as required by applicable FAR)		
a. Factory address (If different from above)	b. Application if for: <input type="checkbox"/> New Production Certificate <input type="checkbox"/> Additions to Production Certificate (Give P.C. No.)	P.C. No.
c. Applicant is holder of license under a Type Certificate or a Supplemental Type Certificate (Attach evidence of licensing agreement and give certificate number)		T.C. / S.T.C. No.
6. SUPPLEMENTAL TYPE CERTIFICATE (complete items 6a - d below)		
a. Make and model designation of product to be modified Eurocopter AS350 series (all models), AS355 series (all models)		
b. Description of modification Installation of External Cargo Basket Support beams are attached to the landing gear legs (which can remain when basket is removed). The cargo basket attaches to the beams. The basket can be mounted and removed from the beams without tools.		
c. Will data be available for sale or release to other persons? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	d. Will parts be manufactured for sale? (Ref: FAR 21.303) <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
7. CERTIFICATION - I certify that the above statements are true.		
Signature of certifying authority E. Burgoin Per: 	Title P.Eng, DAR 290M (AERO Design Ltd.)	Date 16 September, 2008

MODIFICATION APPROVAL REQUEST APPLICATION FORM

MOD751, Rev. 0

1. NAME AND ADDRESS OF APPLICANT:		2. IDENTIFICATION OF PRODUCT				
AERO Design Ltd. 2013 - 39th Avenue NE Calgary, Alberta, Canada T2E 6R7		MAKE: Eurocopter		MODEL: AS350 (all models) AS355 (all models)		
ALL CORRESPONDANCE TO: AERO Design Ltd. 2013 - 39th Avenue NE Calgary, Alberta T2E 6R7		SERIAL No.: All eligible		REGISTRATION: All eligible		
3. REQUEST FOR:						
A. SUPPLEMENTAL TYPE CERTIFICATE (STC)		<input type="checkbox"/>				
B. STC/STA REVISION		<input type="checkbox"/> STC/STA No.				
C. LIMITED SUPPLEMENTAL TYPE CERTIFICATE (LSTC)		<input type="checkbox"/>				
D. LIMITED STC/STA REVISION		<input type="checkbox"/> LSTC/LSTA No.				
E. F.A.A. SUPPLEMENTAL TYPE CERTIFICATE		<input checked="" type="checkbox"/>				
F. F.A.A. STC REVISION		<input type="checkbox"/> STC No.				
G. FAMILIARIZATION OF F.A.A. STC		<input type="checkbox"/> STC No.				
H. REPAIR DESIGN APPROVAL (RDC)		<input type="checkbox"/>				
I. PARTS DESIGN APPROVAL (PDA)		<input type="checkbox"/>				
4. TITLE OF MODIFICATION OR REPAIR: Quick Release Cargo Basket Installation						
5. BRIEF DESCRIPTION OF MODIFICATION OR REPAIR: Installation of Cargo Basket on side of the helicopter. Provisions for basket clamp to the landing gear legs. Cargo basket mounts to provisions.						
6. APPLICABLE TYPE APPROVAL (TA) OR TYPE CERTIFICATE (TC) DOCUMENTS:						
A. TA NO. <u>H-83/H-87</u> B. TC No. _____ C. OTHER _____						
7. PROPOSED BASIS OF APPROVAL:						
A. SAME AS TA <input checked="" type="checkbox"/> B. SAME AS TC <input type="checkbox"/> C. OTHER <input type="checkbox"/> (Please specify) _____						
8. DOCUMENTATION CHECKLIST		REQUIRED		FOR DOT USE ONLY		
		YES	NO	RECEIVED		
		YES	NO	YES	NO	DATE
COMPLIANCE PROGRAM		X				
MASTER DRAWING LIST		X				
FLIGHT MANUAL SUPPLEMENT		X				
MAINTENANCE MANUAL SUPPLEMENT			X			
INSTRUCTIONS FOR CONTINUING AIRWORTHINESS		X				
ENGINEERING REPORTS		X				
DESIGN DRAWINGS			X			
MANUFACTURE DRAWINGS & INSTALLATION INSTRUCTIONS		X				
ELECTRICAL LOAD ANALYSIS			X			
DRAFT STC, LSTC OR RDA			X			
WEIGHT AND MOMENT CHANGE		X				
FLIGHT TEST DATA		X				
OTHER (Specify)			X			
9. APPLICANT'S REMARKS: STC based on Transport Canada STC # SH06-16						
10. In addition to the payment of Aircraft Certification approval fees as prescribed in Canadian Aviation Regulations (CAR) Section 104, I agree to reimburse Transport Canada incremental expenses as in Aviation Regulation Directive No. 3, or equivalent, as applicable. For further details governing cost recovery, refer to AMA 513/4.						
AERO Design Ltd.						
PER: 		Consultant		16 September, 2008		
SIGNATURE OF APPLICANTS		TITLE		DATE		
11.						
SIGNATURE OF REGIONAL ENGINEER					DATE	



Transport
Canada

Transports
Canada

1100-9700 Jasper Avenue
Edmonton, Alberta T5J 4E6

April 16, 2008

Your file Votre référence
764

Our file Notre référence
C-08-0181
SH08-16

Aero Design Ltd.
2013 39th Avenue North East
Calgary, Alberta
Canada, T2E 6R7

Dear Sirs:

**SUBJECT: SUPPLEMENTAL TYPE CERTIFICATE NO. SH08-16 – ISSUE 1 DATED
APRIL 11, 2008 – INSTALLATION OF EXTERNAL ATTACHMENT
PROVISIONS AND CARGO BASKET – EUROCOPTER AS 350 B1, AS 350 B2,
AS 350 B3, AS 350 BA, AS 350 D, AS 350 D1,
EUROCOPTER FRANCE AS 355 E, AS 355 F, AS 355 F1, AS 355 F2,
AS 355 N, AS 355 NP – ISSUED TO AERO DESIGN LTD.**

This Supplemental Type Certificate (STC) is issued in response to your application. Included with the STC are the documents bearing the original Transport Canada signatures.

The transfer of this SH08-16 in the name of another person requires the prior approval from the Minister in accordance with Canadian Aviation Regulations (CAR) 513.25.

The requirements of CAR 561 apply where parts are manufactured and offered for sale. The provisions of CAR 571.06(4) should also be consulted.

A Canadian holder is required to report any service problem experienced with their product. Therefore, should you become aware of any defect, malfunction or failure resulting from the design change, it is your responsibility to submit a Service Difficulty Report to Transport Canada in accordance with CAR V, Subpart 91.

Yours truly,

J. Staal
Aircraft Certification Engineering Technologist
Prairie and Northern Region
Phone: 780-495-5227
Facs: 780-495-7963

Encl.

AIRWORTHINESS REQUIREMENTS COMPLIANCE PROGRAM

Page 1 of 3
CP764

APPLICANT: AERO Design Ltd.
2013 39th Avenue NE
Calgary, Alberta, T2E 6R7

DATE: 06 February, 2008
REV. No. 0

CORRESPONDANCE TO:
(If other than applicant)

MAKE: Eurocopter (Aerospatiale)
MODEL: AS350 Series, AS355 Series

REGISTRATION: All Applicable
SERIAL No.: All Applicable

NATURE OF WORK: Installation of Side-Mounted External Cargo Basket

MODEL CERTIFICATION BASIS: FAR 27, Amendment 27-20, plus select sections of later Amendments (AS355NP basis of certification)
MODIFICATION CERTIFICATION BASIS: FAR 27, Amendment 27-20, plus select sections of later Amendments (AS355NP basis of certification) (PER APPLIC. TCDS)
(EXCEPT CAT A - FAR 29)

Airworthiness Requirement	Subject for Compliance or Documentary Proof	Form of Substantiation	DOT	DAR	Comments
Paragraph	Amdt.				
Subpart B - Flight					
27.27	20	Centre of Gravity Limits	N/A		
27.29	20	Empty Weight and Corresponding C of G	Data specified on inst'n drawing		
27.45	21	24 Performance - General	Flight Test	X	
27.51	20	29 Takeoff	Flight Test	X	
27.65	20	29 Climb: All Engines Operating	Flight Test	X	
27.71	21	Glide Performance	Flight Test	X	
27.73	20	Performance at Min. Operating Speed	Flight Test	X	
27.75	20	38 Landing	Flight Test	X	
27.141	20	Flight Characteristics - General	Flight Test	X	
27.143	21	Controllability and Maneuverability	Flight Test	X	
27.151	21	Flight Controls	Flight Test	X	
27.161	21	Trim Control	Flight Test	X	
27.171	20	Stability - General	Flight Test	X	
27.173	21	Static Longitudinal Stability	Flight Test	X	
27.175	21	Demonstration of Longitudinal Stability	Flight Test	X	
27.177	21	Static Directional Stability	Flight Test	X	
27.241	20	Ground Resonance	Flight Test	X	
27.251	20	Vibration	Flight Test	X	

No change from Type Approval.

X

SEE FT REPORT
(M. Brubotte) Flight 18 MAR 2008

Flight test in accordance with FTP764.03

AIRWORTHINESS REQUIREMENTS COMPLIANCE PROGRAM

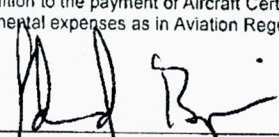

Airworthiness Requirement	Subject for Compliance or Documentary Proof	Form of Substantiation	DOT	DAR	Comments
Paragraph	Amdt.				
Subpart C – Strength Requirements					
27.301	20	Loads – Air Drag Loads			
27.301	20	Loads – Inertia Loads		X	
27.303	20	Factor of Safety		X	
27.305	20	Strength and Deformation		X	
27.307	20	Proof of Structure		X	
27.337(a)	20	Limit Maneuvering Load Factor – Positive		X	
		Analysis and Test iaw AC 43.13-1B		X	Critical load factor in downward direction.
27.547	20	Main Rotor Structure			
27.561	20	Emergency Landing Conditions			
27.561(b)3(i)	20	Emergency Landing Conditions – Up		X	see FT REPORT
27.561(b)3(ii)	20	Emergency Landing Conditions – Fwd		X	
		N/A			Forward deflection or failure of basket poses no threat to occupants.
27.561(b)3(iii)	20	Emergency Landing Conditions – Side		X	
27.561(b)3(iv)	20	Emergency Landing Conditions – Down		X	27.337 Maneuvering Load is Critical.
		Analysis and Test iaw AC 43.13-1B			
		Compliance with 27.337			
Subpart D – Design and Construction					
27.601	20	Design			
27.603	20	Materials		X	Design is conventional.
27.605	20	Fabrication Methods		X	Materials used are specified in Mil-Hdbk-5J.
27.609	20	Protection of Structure		X	Design is conventional.
27.611	20	Inspection Provisions		X	
27.613	20	Material Strength Properties and Design Values		X	Design is easy to inspect.
27.625	20	Fitting Factor		X	
		Analysis			
27.783	20	Doors			
27.787(a)	20	Cargo and Baggage Compartments			Installation does not block doors.
27.787(b)	20	Cargo and Baggage Compartments		X	
27.787(c)	20	Cargo and Baggage Compartments		X	Basket is a closed container.
27.787(d)	20	Cargo and Baggage Compartments			Cargo is external to helicopter.
		N/A			No cargo lamps
27.807	21	Emergency Exits			
		N/A		X	Installation does not block doors.
27.1387	20	Position Light System Dihedral Angles			
27.1401	20	Anticollision Light System			No change from Type Approval.
		N/A – statement in report			No change from Type Approval.
		N/A – statement in report			

AIRWORTHINESS REQUIREMENTS COMPLIANCE PROGRAM

Airworthiness Requirement	Subject for Compliance or Documentary Proof	Form of Substantiation	DOT	DAR	Comments
Paragraph	Amdt.				
Subpart G – Operating Limitations and Information					
27.1505	20	Never Exceed Speed	Flight Test,	X P	V _{NE} limits as specified in the existing Flight Manual Limited to VFR only. MSI §3 reviewed
27.1525	21	Kinds of Operation	Flight Manual Supplement	X P	
27.1529	20	Instructions for Continued Airworthiness	Flight Manual Supplement ICA Provided	X P X P	
27.1557(a)	20	Miscellaneous Markings and Placards – Baggage Compartments	Placard on lid		X
27.1557(b)	20	Miscellaneous Markings and Placards	N/A		
27.1557(c)	20	Miscellaneous Markings and Placards	N/A		
27.1557(d)	20	Miscellaneous Markings and Placards	N/A		
27.1581	20	Rotorcraft Flight Manual – General	Flight Manual Supplement	X P	} see Flight Test email accepting FMS for approval. Placard installed on basket lid
27.1583(c)	20	Operating Limitations – Weight and Loading Information	Flight Manual Supplement	X P	
27.1585	21	Operating Procedures	Flight Manual Supplement	X P	
27.1587	44	Performance Information	Flight Manual Supplement	X P	
27.1589	20	Loading Information	Flight Manual Supplement & Placard	X P	
CAR 527					
527.1093(b)		Induction System Icing Protection	N/A		No change from Type Approved configuration
(1)(ii)+(iii)					
527.1301-1		Rotorcraft Operations After Ground Cold Soak	N/A		No change from Type Approved configuration
527.1557(c)		Miscellaneous Markings and Placards – Fuel Filler Openings	N/A		No change from Type Approved configuration
(3)					
527.1581		Flight Manual - General	Flight Manual Supplement	X P	SI / Imperial units provided
527.1583(h)		Operating Limitations – Ambient Temperature	N/A		No change from Type Approved configuration

MODIFICATION APPROVAL REQUEST APPLICATION FORM

MOD764, Rev. 0

1. NAME AND ADDRESS OF APPLICANT:		2. IDENTIFICATION OF PRODUCT				
AERO Design Ltd. 2013 - 39th Avenue NE Calgary, Alberta T2E 6R7		MAKE: Eurocopter	MODEL: AS350 (all models) AS355 (all models)			
ALL CORRESPONDANCE TO: AERO Design Ltd. 2013 - 39th Avenue NE Calgary, Alberta T2E 6R7		SERIAL No.: All eligible	REGISTRATION: All eligible			
3. REQUEST FOR:						
A. SUPPLEMENTAL TYPE CERTIFICATE (STC)		<input checked="" type="checkbox"/>	C-08-0181			
B. STC/STA REVISION		<input type="checkbox"/>				
C. LIMITED SUPPLEMENTAL TYPE CERTIFICATE (LSTC)		<input type="checkbox"/>	STC/STA No.			
D. LIMITED STC/STA REVISION		<input type="checkbox"/>	LSTC/LSTA No.			
E. F.A.A. SUPPLEMENTAL TYPE CERTIFICATE		<input checked="" type="checkbox"/>				
F. F.A.A. STC REVISION		<input type="checkbox"/>	STC No.			
G. FAMILIARIZATION OF F.A.A. STC		<input type="checkbox"/>	STC No.			
H. REPAIR DESIGN APPROVAL (RDC)		<input type="checkbox"/>				
I. PARTS DESIGN APPROVAL (PDA)		<input type="checkbox"/>				
4. TITLE OF MODIFICATION OR REPAIR: Quick Release Cargo Basket Installation						
5. BRIEF DESCRIPTION OF MODIFICATION OR REPAIR: Installation of external attachment provisions (low or high configuration). Installation of cargo basket.						
6. APPLICABLE TYPE APPROVAL (TA) OR TYPE CERTIFICATE (TC) DOCUMENTS:						
A. TA NO. H-83/H-87 B. TC No. C. OTHER						
7. PROPOSED BASIS OF APPROVAL:						
A. SAME AS TA <input checked="" type="checkbox"/> B. SAME AS TC <input type="checkbox"/> C. OTHER <input type="checkbox"/> (Please specify)						
8. DOCUMENTATION CHECKLIST		REQUIRED		FOR DOT USE ONLY		
		YES	NO	RECEIVED		
				YES	NO	DATE
COMPLIANCE PROGRAM		X				
MASTER DRAWING LIST		X				
FLIGHT MANUAL SUPPLEMENT		X				
MAINTENANCE MANUAL SUPPLEMENT			X			
INSTRUCTIONS FOR CONTINUING AIRWORTHINESS		X				
ENGINEERING REPORTS		X				
DESIGN DRAWINGS			X			
MANUFACTURE DRAWINGS & INSTALLATION INSTRUCTIONS		X				
ELECTRICAL LOAD ANALYSIS			X			
DRAFT STC, LSTC OR RDA		X				
WEIGHT AND MOMENT CHANGE		X				
FLIGHT TEST DATA		X				
OTHER (Specify)						
9. APPLICANT'S REMARKS:						
10. In addition to the payment of Aircraft Certification approval fees as prescribed in Canadian Aviation Regulations (CAR) Section 104, I agree to reimburse Transport Canada incremental expenses as in Aviation Regulation Directive No. 3, or equivalent, as applicable. For further details governing cost recovery, refer to AMA 513/4						
PER: 		Consultant		19 February, 2007		
SIGNATURE OF APPLICANTS		TITLE		DATE		
11.						
				11 Apr 2008		
SIGNATURE OF REGIONAL ENGINEER				DATE		

MSI 53 – Review of Supplemental Instructions for Continued Airworthiness

APPENDIX A-3 NORMAL CATEGORY ROTORCRAFT – CAR 529

BLOCK 1

Name of the applicant for the design change approval:	Aero Design Ltd.
Description of the design change:	Installation of Quick Release Cargo Basket on Eurocopter AS350 & AS355 Series
Certification Basis of design change and revision date:	FAR 27, Amendment 27-20
CAR Standard A527.1(c) Program showing how changes to supplemental ICA made by the applicant or by the manufacturers of products and appliances installed in the aeroplane pursuant to the design change will be distributed:	Section 0-3 of Supplemental ICA (ICA 764.90)
CAR Standard 513.05 (1) (g) (iv): Installation Instructions:	Installation Drawing 76401, 77601, 77602, 78401, 78402, 78601

BLOCK 2

Note: Enter "N/A" when no supplemental ICA are needed.

Regulatory Standard Reference Column 1	Design Approval Holder (DAH) ICA Reference Column 2	Applicant Means of Compliance Supplemental ICA Requirements Column 3
A527.2 (a) Manual(s) (a) The Instructions for Continued Airworthiness must be in the form of a manual or manuals as appropriate for the quantity of data to be provided.	ICA ref: Eurocopter AS350/AS355 Maintenance Manuals	Supplemental ICA ref: Single Manual (ICA764.90)
A527.2 (b) Practical arrangement (b) The format of the manual or manuals must provide for a practical arrangement.	ICA ref: Eurocopter AS350/AS355 Maintenance Manual	Supplemental ICA ref: Arranged in ATA format
A527.3 The Instructions for Continued Airworthiness must contain the following manuals or sections, as appropriate, and information:		
A527.3 (a) Rotorcraft maintenance manual or section		
A527.3 (a) (1) (Introduction) (1) Introduction information that includes an explanation of the rotorcraft's features and data to the extent necessary for maintenance or preventive maintenance.	ICA ref: Eurocopter Description and Operation Manual	Supplemental ICA ref: Section 0-1
A527.3 (a) (2) (Description) (2) A description of the rotorcraft and its systems and installations including its engines, rotors, and appliances.	ICA ref: Eurocopter Description and Operation Manual	Supplemental ICA ref: Section 0-5

MSI 53 – Review of Supplemental Instructions for Continued Airworthiness

Regulatory Standard Reference Column 1	Design Approval Holder (DAH) ICA Reference Column 2	Applicant Means of Compliance Supplemental ICA Requirements Column 3
A527.3 (a) (3) Control & Operation (3) Basic control and operation information describing how the rotorcraft components and systems are controlled and how they operate, including any special procedures and limitations that apply.	ICA ref: Eurocopter Description and Operation Manual	Supplemental ICA ref: N/A
A527.3 (a) (4) Servicing (4) Servicing information that covers details regarding servicing points, capacities of tanks, reservoirs, types of fluids to be used, pressures applicable to the various systems, location of access panels for inspection and servicing, locations of lubrication points, lubricants to be used, equipment required for servicing, tow instructions and limitations, mooring, jacking, and levelling information.	ICA ref: Eurocopter AS350/AS355 Maintenance Manual, Chapter 12	Supplemental ICA ref: N/A
A527.3 The Instructions for Continued Airworthiness must contain the following manuals or sections, as appropriate, and information;		
A527.3 (b) Maintenance Instructions.		
A527.3 (b) (1) Scheduling 1) Scheduling information for each part of the rotorcraft and its engines, auxiliary power units, rotors, accessories, instruments, and equipment that provides the recommended periods at which they should be cleaned, inspected, adjusted, tested, and lubricated, and the degree of inspection, the applicable wear tolerances, and work recommended at these periods. However, the applicant may refer to an accessory, instrument, or equipment manufacturer as the source of this information if the applicant shows that the item has an exceptionally high degree of complexity requiring specialized maintenance techniques, test equipment, or expertise. The recommended overhaul periods and necessary cross-references to the Airworthiness Limitations section of the manual must also be included. In addition, the applicant must include an inspection program that includes the frequency and extent of the inspections necessary to provide for the continued airworthiness of the rotorcraft.	ICA ref: Eurocopter AS350/AS355 Maintenance Manual, Chapter 5	Supplemental ICA ref: Section 5-1
A527.3 (b) (2) Troubleshooting (2) Troubleshooting information describing probable malfunctions, how to recognize those malfunctions, and the remedial action for those malfunctions.	ICA ref: N/A	Supplemental ICA ref: N/A

MSI 53 – Review of Supplemental Instructions for Continued Airworthiness

Regulatory Standard Reference Column 1	Design Approval Holder (DAH) ICA Reference Column 2	Applicant Means of Compliance Supplemental ICA Requirements Column 3
A527.3 (b) (3) Removal/replacement (3) Information describing the order and method of removing and replacing products and parts with any necessary precautions to be taken.	ICA ref: Eurocopter AS350/AS355 Maintenance Manual, Chapter 25	Supplemental ICA ref: Section 25-1 thru 25-4
A527.3 (b) (4) General (4) Other general procedural instructions including procedures for system testing during ground running, symmetry checks, weighing and determining the center of gravity, lifting and shoring, and storage limitations.	ICA ref: Eurocopter AS350/AS355 Maintenance Manual, Chapter 7 and 8	Supplemental ICA ref: Section 25-5
A527.3 (c) Access (c) Diagrams of structural access plates and information needed to gain access for inspections when access plates are not provided.	ICA ref: N/A	Supplemental ICA ref: N/A
A527.3 (d) Special inspections (d) Details for the application of special inspection techniques including radiographic and ultrasonic testing where such processes are specified.	ICA ref: Eurocopter AS350/AS355 Maintenance Manual, Chapter 5	Supplemental ICA ref: Section 5-1
A527.3 (e) Protective treatment (e) Information needed to apply protective treatments to the structure after inspection.	ICA ref: Eurocopter Standard Practices Manual, Chapter 20	Supplemental ICA ref: Section 5-3
A527.3 (f) Fasteners, torque values, etc (f) All data relative to structural fasteners such as identification, discard recommendations, and torque values.	ICA ref: Eurocopter Standard Practices Manual, Chapter 20	Supplemental ICA ref: Section 25-6
A527.3 (g) Special tools (g) A list of special tools needed.	ICA ref: Eurocopter Tools Catalog	Supplemental ICA ref: N/A

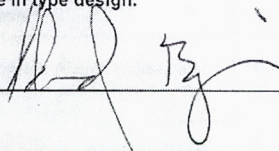
BLOCK 3

Note: The statement in block 5 does not constitute an approval of the Airworthiness Limitations Section. Airworthiness Limitations differ from other maintenance tasks, in that they are mandatory, as a direct condition of the approval of the type design. They are therefore referenced directly in the approval document itself. However, they must also be included in the Supplemental Instructions for Continued Airworthiness.

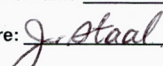
MSI 53 – Review of Supplemental Instructions for Continued Airworthiness

<p>A527.4 AWL - Separate Section 1 The Instructions for Continued Airworthiness must contain a section titled Airworthiness Limitations that is segregated and clearly distinguishable from the rest of the document. This section must set forth each mandatory replacement time, structural inspection interval, and related structural inspection procedure approved under 527.571. If the Instructions for Continued Airworthiness consist of multiple documents, the section required by this paragraph must be included in the principal manual. This section must contain a legible statement in a prominent location that reads: "The Airworthiness Limitations section is approved by the Minister and specifies maintenance required by any applicable airworthiness or operating rule unless an alternative program has been approved by the Minister."</p>	ICA ref: Eurocopter AS350/AS355 Maintenance Manual, Chapter 4	Supplemental ICA ref: Chapter 4
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BLOCK 4 – Applicant Statement of Compliance

The Supplemental ICA referenced above comprises the complete listing of supplemental ICA necessary to show compliance with the regulatory standard that supports this change in type design.	
Applicants Signature: 	Date: <u>March 13, 2008</u>
Applicants Name: <u>E. Burgoin, P.Eng. DAR 290M</u>	

BLOCK 5 – Minister's Statement of Acceptability

The design change is adequately supported by existing ICA and/or supplemental ICA, as identified above and is acceptable to the Minister.			
Reviewer's Name: <u>J. STAAL</u>	Phone # <u>780-495-5227</u>	Email: <u>staal@tc.gc.ca</u>	Mail Routing Symbol: <u>RAEP</u>
Signature: 	Date: <u>6 April 2008</u>	NAPA Number <u>C-08-0181</u>	


DOCUMENT CONTROL LIST

DOCUMENT NO.	DOCUMENT CONTENT	REVISION
INSTALLATION DOCUMENTS		
78401	Quick Release Cargo Basket Installation	0
ICA764.90	Instructions for Continued Airworthiness	0
FMS764.91	Flight Manual Supplement	0
FABRICATION DOCUMENTS		
DCL784-3	Document Control List - Basket Assembly	0
ENGINEERING DOCUMENTS		
<div> <div> APPROVAL:  <div> Transport Canada </div> </div> <div>  <div> Transports Canada </div> </div> </div> <div> AIRCRAFT CERTIFICATION DIVISION APPROVED By <u>D. S. Austin</u> App'l No. <u>SH08-16</u> App'l Date <u>08-04-11</u> Issue No. <u>1</u> Issue Date <u>08-04-11</u> YY-MM-DD </div>		
ORIGINAL DATE: 06 March 2008 REVISION DATE:		AERO DESIGN LTD. 2013 – 39 th Ave NE, Calgary, Alberta, T2E 6R7 Ph. (403) 250-8027 Fax. (403) 250-8333
SHEET 1 OF 1		Eurocopter AS350 & AS355 Series Quick Release Cargo Basket Installation
DCL784-1		Rev. 0


DOCUMENT CONTROL LIST

DOCUMENT NO.	DOCUMENT CONTENT	REVISION															
INSTALLATION DOCUMENTS																	
78402	Quick Release Cargo Basket Installation	0															
ICA764.90	Instructions for Continued Airworthiness	0															
FMS764.91	Flight Manual Supplement	0															
FABRICATION DOCUMENTS																	
DCL784-3	Document Control List - Basket Assembly	0															
ENGINEERING DOCUMENTS																	
<div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> <p>APPROVAL:</p> <div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> <div style="display: flex; justify-content: space-between;"> Transport Canada Transports Canada </div> <p style="text-align: center;">AIRCRAFT CERTIFICATION DIVISION</p> <p style="text-align: center;">APPROVED</p> <p>By <u><i>D. S. Austin</i></u></p> <p>App'l No. <u>SH08-16</u></p> <p>App'l Date <u>08-04-11</u></p> <p>Issue No. <u>1</u></p> <p>Issue Date <u>08-04-11</u></p> <p style="text-align: center; font-size: small;">YY - MM - DD</p> </div> </div> <div style="width: 65%;"> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%;">ORIGINAL DATE:</td> <td colspan="2">06 March 2008</td> </tr> <tr> <td>REVISION DATE:</td> <td colspan="2"></td> </tr> <tr> <td colspan="3" style="text-align: center;"> <p>AERO DESIGN LTD.</p> <p>2013 - 39th Ave NE, Calgary, Alberta, T2E 6R7</p> <p>Ph. (403) 250-8027</p> <p>Fax. (403) 250-8333</p> </td> </tr> <tr> <td style="width: 20%;">SHEET 1 OF 1</td> <td colspan="2" style="text-align: center;"> <p>Eurocopter AS350 & AS355 Series</p> <p>Quick Release Cargo Basket</p> <p>Installation</p> </td> </tr> <tr> <td colspan="2" style="text-align: center; font-size: 2em; font-weight: bold;">DCL784-2</td> <td style="text-align: center;"> <p>Rev.</p> <p style="font-size: 2em; font-weight: bold;">0</p> </td> </tr> </table> </div> </div>			ORIGINAL DATE:	06 March 2008		REVISION DATE:			<p>AERO DESIGN LTD.</p> <p>2013 - 39th Ave NE, Calgary, Alberta, T2E 6R7</p> <p>Ph. (403) 250-8027</p> <p>Fax. (403) 250-8333</p>			SHEET 1 OF 1	<p>Eurocopter AS350 & AS355 Series</p> <p>Quick Release Cargo Basket</p> <p>Installation</p>		DCL784-2		<p>Rev.</p> <p style="font-size: 2em; font-weight: bold;">0</p>
ORIGINAL DATE:	06 March 2008																
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SHEET 1 OF 1	<p>Eurocopter AS350 & AS355 Series</p> <p>Quick Release Cargo Basket</p> <p>Installation</p>																
DCL784-2		<p>Rev.</p> <p style="font-size: 2em; font-weight: bold;">0</p>															

DOCUMENT CONTROL LIST

DOCUMENT NO.	DOCUMENT CONTENT	REVISION	
INSTALLATION DOCUMENTS			
FABRICATION DOCUMENTS			
78410	Basket Assembly	0	
78411	Basket Body Assembly	0	
78412	Lid Assembly	0	
76421	Hoop	0	
76422	Hoop Assembly	0	
76423	Hoop Assembly	0	
78427	Placard	0	
78428	Placard	0	
69823	Lug	1	
49215	Spacer	0	
49216	Spacer	0	
36255	Handle Assembly	1	
36261	Handle Bar Assembly	4	
36262	Handle Bracket Assembly	1	
36271	Handle Lever	1	
36272	Basket Bracket	1	
36273	Lid Bracket	1	
36274	Bushing	1	
36275	Bushing	2	
36277	Handle Bar	0	
36278	Spring	2	
36280	Brace Assembly	2	
 ENGINEERING DOCUMENTS			
ER764.01	Engineering Report	0	
TP764.02	Test Plan/Report	0	
FTP764.03	Flight Test Plan/Report	0	
APPROVAL:			
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	SHEET 1 OF 1	Eurocopter AS350 & AS355 Series Quick Release Cargo Basket Basket Assembly	
	DCL784-3		Rev. <div style="font-size: 2em; font-weight: bold; text-align: center;">0</div>

DOCUMENT CONTROL LIST

DOCUMENT NO.	DOCUMENT CONTENT	REVISION	
INSTALLATION DOCUMENTS			
77601	Quick Release Cargo Basket Installation	0	
ICA764.90	Instructions for Continued Airworthiness	0	
FMS764.91	Flight Manual Supplement	0	
FABRICATION DOCUMENTS			
DCL776-3	Document Control List - Basket Assembly	0	
ENGINEERING DOCUMENTS			
APPROVAL:			
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	SHEET 1 OF 1	Eurocopter AS350 & AS355 Series Quick Release Cargo Basket Installation	
	DCL776-1	Rev. 0	


DOCUMENT CONTROL LIST

DOCUMENT NO.	DOCUMENT CONTENT	REVISION															
INSTALLATION DOCUMENTS																	
77602	Quick Release Cargo Basket Installation	0															
ICA764.90	Instructions for Continued Airworthiness	0															
FMS764.91	Flight Manual Supplement	0															
FABRICATION DOCUMENTS																	
DCL776-3	Document Control List - Basket Assembly	0															
ENGINEERING DOCUMENTS																	
<div style="display: flex; justify-content: space-between; align-items: flex-start;"> <div style="width: 30%;"> <p>APPROVAL:</p> <div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> <div style="display: inline-block; text-align: center;"> Transport Canada </div> <div style="display: inline-block; text-align: center;"> Transport Canada </div> </div> <p style="text-align: center;">AIRCRAFT CERTIFICATION DIVISION</p> <p style="text-align: center; font-weight: bold; font-size: 1.2em;">APPROVED</p> <p>By <u><i>D. S. Austin</i></u></p> <p>Appr'l No. <u>SH08-16</u></p> <p>Appr'l Date <u>08-04-11</u></p> <p>Issue No. <u>1</u></p> <p>Issue Date <u>08-04-11</u></p> <p style="text-align: center; font-size: 0.8em;">YY - MM - DD</p> </div> <div style="width: 65%;"> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%;">ORIGINAL DATE:</td> <td colspan="2">06 March 2008</td> </tr> <tr> <td>REVISION DATE:</td> <td colspan="2"></td> </tr> <tr> <td></td> <td colspan="2" style="text-align: center;"> AERO DESIGN LTD. 2013 - 39th Ave NE, Calgary, Alberta, T2E 6R7 Ph. (403) 250-8027 Fax. (403) 250-8333 </td> </tr> <tr> <td>SHEET 1 OF 1</td> <td colspan="2" style="text-align: center;"> Eurocopter AS350 & AS355 Series Quick Release Cargo Basket Installation </td> </tr> <tr> <td style="text-align: center; font-size: 1.5em; font-weight: bold;">DCL776-2</td> <td style="width: 10%; text-align: center;">Rev.</td> <td style="text-align: center; font-size: 1.5em; font-weight: bold;">0</td> </tr> </table> </div> </div>			ORIGINAL DATE:	06 March 2008		REVISION DATE:				AERO DESIGN LTD. 2013 - 39 th Ave NE, Calgary, Alberta, T2E 6R7 Ph. (403) 250-8027 Fax. (403) 250-8333		SHEET 1 OF 1	Eurocopter AS350 & AS355 Series Quick Release Cargo Basket Installation		DCL776-2	Rev.	0
ORIGINAL DATE:	06 March 2008																
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DCL776-2	Rev.	0															

DOCUMENT CONTROL LIST

DOCUMENT NO.	DOCUMENT CONTENT	REVISION
INSTALLATION DOCUMENTS		
76401	Quick Release Cargo Basket Installation	0
ICA764.90	Instructions for Continued Airworthiness	0
FMS764.91	Flight Manual Supplement	0
FABRICATION DOCUMENTS		
DCL764-3	Document Control List - Basket Assembly	0
ENGINEERING DOCUMENTS		
<div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> <p>APPROVAL:</p> <div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> <div style="display: inline-block; text-align: center;"> Transport Canada </div> <div style="display: inline-block; text-align: center;"> Transports Canada </div> </div> <div style="text-align: center;"> AIRCRAFT CERTIFICATION DIVISION APPROVED By <u><i>D.S. Austin</i></u> Appr'l No. <u>SH08-16</u> Appr'l Date <u>08-04-11</u> Issue No. <u>1</u> Issue Date <u>08-04-11</u> <small>YY-MM-DD</small> </div> </div> <div style="width: 40%;"> <p>ORIGINAL DATE: 06 March 2008</p> <p>REVISION DATE:</p> </div> <div style="width: 30%; text-align: center;"> <p>AERO DESIGN LTD. 2013 – 39th Ave NE, Calgary, Alberta, T2E 6R7 Ph. (403) 250-8027 Fax. (403) 250-8333</p> </div> </div> <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <div style="width: 30%;"> <p>SHEET 1 OF 1</p> </div> <div style="width: 40%; text-align: center;"> <p>Eurocopter AS350 & AS355 Series Quick Release Cargo Basket Installation</p> </div> <div style="width: 30%; text-align: center;"> <p>Rev.</p> </div> </div> <div style="display: flex; justify-content: space-between; margin-top: 20px;"> <div style="width: 60%; text-align: center;"> <h2 style="margin: 0;">DCL764-1</h2> </div> <div style="width: 35%; text-align: center;"> <h2 style="margin: 0;">0</h2> </div> </div>		

DOCUMENT CONTROL LIST

DOCUMENT NO.	DOCUMENT CONTENT	REVISION	
INSTALLATION DOCUMENTS			
FABRICATION DOCUMENTS			
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76411	Basket Body Assembly	0	
69812	Lid Assembly	1	
76421	Hoop	0	
76422	Hoop Assembly	0	
76423	Hoop Assembly	0	
76427	Placard	0	
69823	Lug	1	
69824	Rim	0	
49212	Rim	0	
49213	Lid Brace	1	
49215	Spacer	0	
49216	Spacer	0	
36255	Handle Assembly	1	
36261	Handle Bar Assembly	4	
36262	Handle Bracket Assembly	1	
36271	Handle Lever	1	
36272	Basket Bracket	1	
36273	Lid Bracket	1	
36274	Bushing	1	
36275	Bushing	2	
36277	Handle Bar	0	
36278	Spring	2	
36280	Brace Assembly	2	
 ENGINEERING DOCUMENTS			
ER764.01	Engineering Report	0	
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FTP764.03	Flight Test Plan/Report	0	
APPROVAL:			
 <div style="display: inline-block; vertical-align: middle; text-align: center;"> Transport Canada </div> <div style="display: inline-block; vertical-align: middle; text-align: center;"> Transports Canada </div> AIRCRAFT CERTIFICATION DIVISION APPROVED By <u>D.S. Austin</u> Appr'l No. <u>SH08-16</u> Appr'l Date <u>08-04-11</u> Issue No. <u>1</u> Issue Date <u>08-04-11</u> <small>YY-MM-DD</small>	ORIGINAL DATE:	AERO DESIGN LTD. 2013 - 39 th Ave NE, Calgary, Alberta, T2E 6R7 Ph. (403) 250-8027 Fax. (403) 250-8333	
	REVISION DATE:		
		SHEET 1 OF 1	Eurocopter AS350 & AS355 Series Quick Release Cargo Basket Basket Assembly
	DCL764-3		Rev. 0

AS350 & AS355 SERIES HELICOPTERS

ROTORCRAFT FLIGHT MANUAL SUPPLEMENT

for the

INSTALLATION of the AERO DESIGN QUICK RELEASE CARGO BASKET

CARGO BASKET MODELS:

76401, 77601, 77602, 78401, 78402

Supplemental Type Certificate No. SH08-16

Sections I, II, III and IV of this document comprise the Transport Canada Approved sections of this Flight Manual Supplement. Compliance with Section I, Limitations, is mandatory.

Section V and any subsequent sections if present are Unapproved and are provided for information only.

The information and data contained in this Flight Manual Supplement supersede or supplement that contained in the basic Approved Flight Manual for the Eurocopter AS350 and AS355 Series Helicopters when fitted with the Quick Release Cargo Basket Installation. For limitations, procedures and performance not listed in this Flight Manual Supplement, refer to the Approved Flight Manual and other approved Flight Manual Supplements.



Superseded

Table of Contents

I	Limitations	3
II	Normal Procedures	3
III	Emergency Procedures	3
IV	Performance	3
V	Weight and Balance	4
VI	Installation / removal instructions	16

Record of Revisions

Revision	Issue Date	Pages Revised	Date Inserted	By
0	25 Feb, 2008	None		

I LIMITATIONS

1. The maximum load in the AERO Design Ltd. Quick Release Cargo Basket Models 764 and 784 is 200 lb. (90.5 kg). The maximum load in the AERO Design Ltd. Quick Release Cargo Basket Model 776 is 300 lb. (135.7 kg).
2. Only one basket may be installed on the helicopter, on the right or left side.
3. Flight operations limited to VFR conditions with AERO Design Ltd. Quick Release Cargo Basket installed.
4. V_{NE} is unchanged from the basic rotorcraft.
5. AS355NP only: For Category A operations, the basket must be removed. Mounting provisions may be left in place.

II NORMAL PROCEDURES

1. Pre-flight inspections:
 - a) Ensure that all cargo stored in the cargo basket is properly tied down and secured for flight.
 - b) Ensure that the lid of cargo basket is closed and secured.
 - c) Ensure the basket is locked in position on the beams. Pull up on the forward and aft end of the basket to check.

CAUTION

It is possible to exceed the lateral centre of gravity limits of the rotorcraft under some loading conditions. Pilots must ensure that lateral C of G is within limits when loading the basket.

III EMERGENCY PROCEDURES

No change from basic Approved Flight Manual.

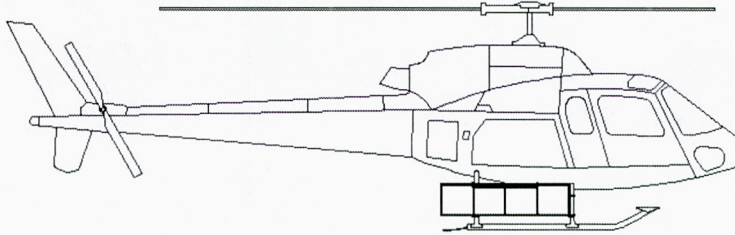
IV PERFORMANCE

1. Cruise performance and range will be reduced by approximately 8 percent with the Cargo Basket Installed.
2. AEO climb performance will be reduced by up to 150 fpm.

V WEIGHT AND BALANCE

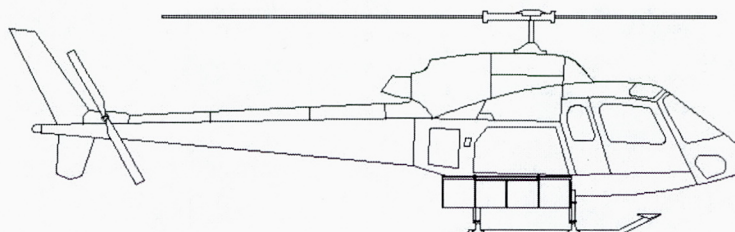
This section contains weight and balance information for cargo basket models 76401, 77601, 77602, 78401 and 78402. Each cargo basket model has multiple configurations. Refer to the weight and balance information applicable to basket model and configuration installed.

1. **MODEL 76401.** The following weight and balance is for the cargo basket installed in accordance with drawing 76401.



Quick Release Cargo Basket: Configuration 76401-01 (Low Mounted)

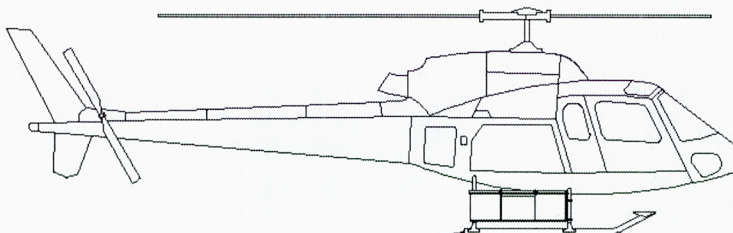
Item	Weight	Longitudinal		Lateral	
		Arm	Moment	Arm	Moment
76401-01 Basket Only ¹	45.0 lb	144.9 in	6520.5 in*lb	+/- 48.6 in	+/- 2187.5 in*lb
	20.4 kg	3680.5 mm	74941.5 mm*kg	+/- 1234.7 mm	+/- 25 140.8 mm*kg
Cargo ² (MAX)	200 lb	144.9 in	28 980 in*lb	+/- 48.6 in	+/- 9722 in*lb
	90.5 kg	3680.5 mm	333073.3 mm*kg	+/- 1234.7 mm	+/- 111 737.0 mm*kg



Quick Release Cargo Basket: Configuration 76401-02 (High Mounted)

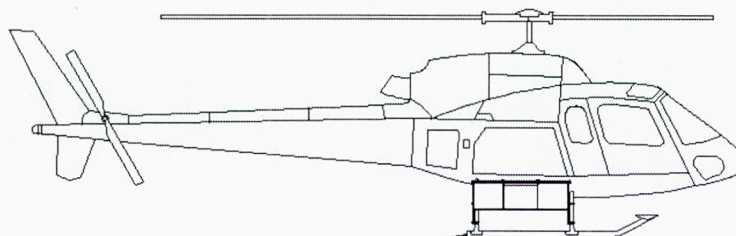
Item	Weight	Longitudinal		Lateral	
		Arm	Moment	Arm	Moment
76401-02 Basket Only ¹	45.0 lb	144.9 in	6520.5 in*lb	+/- 46.3 in	+/- 2084.9 in*lb
	20.4 kg	3680.5 mm	74 941.5 mm*kg	+/- 1176.8 mm	+/- 23 961.6 mm*kg
Cargo ² (MAX)	200 lb	144.9 in	28980 in*lb	+/- 46.3 in	+/- 9266.0 in*lb
	90.5 kg	3680.5 mm	333073.3 mm*kg	+/- 1176.8 mm	+/- 106 496.1 mm*kg

2. **MODEL 77601.** The following weight and balance is for the cargo basket installed in accordance with drawing 77601.



Quick Release Cargo Basket: Configuration 77601-01 (Low mounted)

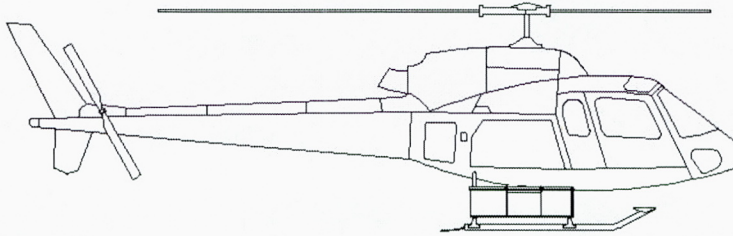
Item	Weight	Longitudinal		Lateral	
		Arm	Moment	Arm	Moment
77601-01 Basket Only ¹	35.0 lb	135.7 in	4749.5 in*lb	+/- 49.2 in	+/- 1723.4 in*lb
	15.8 kg	3446.8 mm	54 587.0 mm*kg	+/- 1250.7 mm	+/- 19 807.4 mm*kg
Cargo ² (MAX)	300 lb	135.7 in	40710.0 in*lb	+/- 49.2 in	+/- 14760.0 in*lb
	135.7 kg	3446.8 mm	467730.8 mm*kg	+/- 1250.7 mm	+/- 169720.0 mm*kg



Quick Release Cargo Basket: Configuration 77601-02 (High mounted)

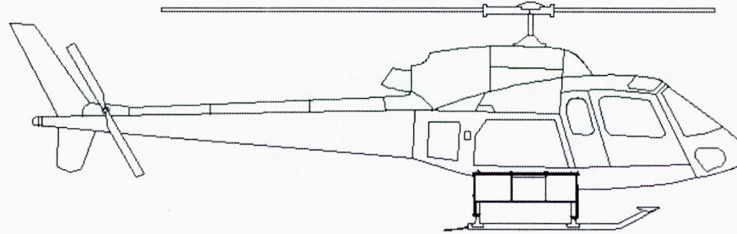
Item	Weight	Longitudinal		Lateral	
		Arm	Moment	Arm	Moment
77601-02 Basket Only ¹	35.0 lb	135.7 in	4749.5 in*lb	+/- 47.0 in	+/- 1643.6 in*lb
	15.8 kg	3446.8 mm	54 587.0 mm*kg	+/- 1192.8 mm	+/- 18 890.2 mm*kg
Cargo ² (MAX)	300 lb	135.7 in	40710.0 in*lb	+/- 47.0 in	+/- 14100.0 in*lb
	135.7 kg	3446.8 mm	467730.8 mm*kg	+/- 1192.8 mm	+/- 161863.0 mm*kg

3. **MODEL 77602.** The following weight and balance is for the cargo basket installed in accordance with drawing 77602.



Quick Release Cargo Basket: Configuration 77602-01 (Low mounted)

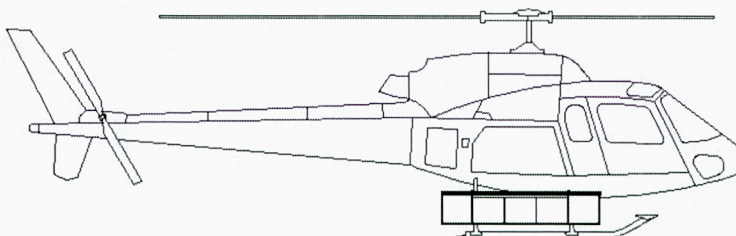
Item	Weight	Longitudinal		Lateral	
		Arm	Moment	Arm	Moment
77602-01 Basket Only ¹	36.2 lb	133.6 in	4836.3 in*lb	+/- 49.2 in	+/- 1781.0 in*lb
	16.4 kg	3393.4 mm	55 584.9 mm*kg	+/- 1249.7 mm	+/- 20 469.9 mm*kg
Cargo ² (MAX)	300 lb	133.6 in	40080.0 in*lb	+/- 49.2 in	+/- 14760.0 in*lb
	135.7 kg	3393.4 mm	460484.4 mm*kg	+/- 1249.7 mm	+/- 169584.3 mm*kg



Quick Release Cargo Basket: Configuration 77602-02 (High mounted)

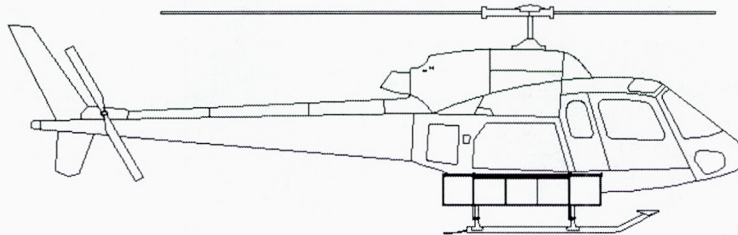
Item	Weight	Longitudinal		Lateral	
		Arm	Moment	Arm	Moment
77602-02 Basket Only ¹	36.2 lb	133.6 in	4836.3 in*lb	+/- 47.0 in	+/- 1700.0 in*lb
	16.4 kg	3393.4 mm	55 584.9 mm*kg	+/- 1192.8 mm	+/- 19 537.9 mm*kg
Cargo ² (MAX)	300 lb	133.6 in	40080.0 in*lb	+/- 47.0 in	+/- 14100.0 in*lb
	135.7 kg	3393.4 mm	460484.4 mm*kg	+/- 1192.8 mm	+/- 161863.0 mm*kg

4. **MODEL 78401.** The following weight and balance is for the cargo basket installed in accordance with drawing 78401.



Quick Release Cargo Basket: Configuration 78401-01 (Low Mounted)

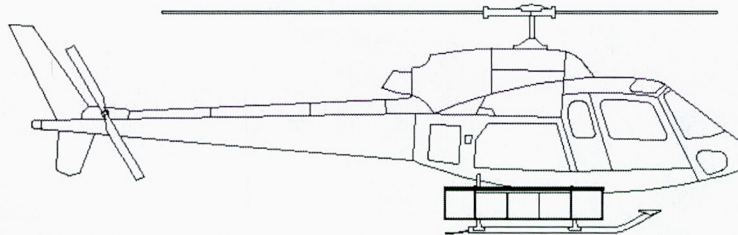
Item	Weight	Longitudinal		Lateral	
		Arm	Moment	Arm	Moment
78401-01 Basket Only ¹	55.0 lb	135.7 in	7463.5 in*lb	+/- 48.4 in	+/- 2659.8 in*lb
	24.9 kg	3446.8 mm	85 779.6 mm*kg	+/- 1228.3 mm	+/- 30 569.6 mm*kg
Cargo ² (MAX)	200 lb	135.7 in	27 140.0 in*lb	+/- 48.4 in	+/- 9672.0 in*lb
	90.5 kg	3446.8 mm	311 925.8 mm*kg	+/- 1228.3 mm	+/- 111 162.4 mm*kg



Quick Release Cargo Basket: Configuration 78401-02 (High Mounted)

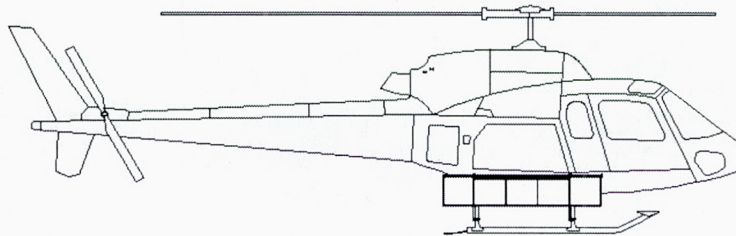
Item	Weight	Longitudinal		Lateral	
		Arm	Moment	Arm	Moment
78401-02 Basket Only ¹	55.0 lb	135.7 in	7463.5 in*lb	+/- 46.1 in	+/- 2534.4 in*lb
	24.9 kg	3446.8 mm	85 779.6 mm*kg	+/- 1170.4 mm	+/- 29 128.4 mm*kg
Cargo ² (MAX)	200 lb	135.7 in	27 140.0 in*lb	+/- 46.1 in	+/- 9216.0 in*lb
	90.5 kg	3446.8 mm	311 925.8 mm*kg	+/- 1170.4 mm	+/- 105 921.4 mm*kg

5. **MODEL 78402.** The following weight and balance is for the cargo basket installed in accordance with drawing 78402.



Quick Release Cargo Basket: Configuration 78402-01 (Low Mounted)

Item	Weight	Longitudinal		Lateral	
		Arm	Moment	Arm	Moment
78402-01 Basket Only ¹	60.0 lb	135.7 in	8142.0 in*lb	+/- 48.4 in	+/- 2901.6 in*lb
	27.1 kg	3446.8 mm	93 577.7 mm*kg	+/- 1228.3 mm	+/- 33 348.7 mm*kg
Cargo ² (MAX)	200 lb	135.7 in	35 850 in*lb	+/- 48.4 in	+/- 18 660 in*lb
	90.5 kg	3446.8 mm	27 140.0 mm*kg	+/- 1228.3 mm	+/- 111 162.4 mm*kg



Quick Release Cargo Basket: Configuration 78402-02 (High Mounted)

Item	Weight	Longitudinal		Lateral	
		Arm	Moment	Arm	Moment
78402-02 Basket Only ¹	60.0 lb	135.7 in	8142.0 in*lb	+/- 46.1 in	+/- 2764.8 in*lb
	27.1 kg	3446.8 mm	93 577.7 mm*kg	+/- 1170.4 mm	+/- 31 776.4 mm*kg
Cargo ² (MAX)	200 lb	135.7 in	27 140.0 in*lb	+/- 46.1 in	+/- 9216.0 in*lb
	90.5 kg	3446.8 mm	311 925.8 mm*kg	+/- 1170.4 mm	+/- 105 921.4 mm*kg

¹ Weight and balance is for Cargo Basket only. Mounting beams are not included since they should have been included in the basic rotorcraft weight and balance at time of initial installation.

² Longitudinal and Lateral moment arms are given only for the center of the Cargo Basket. Due to the length of the basket, some loading arrangements may require that actual moment arms be measured, to determine the correct moments about the center of gravity.

CAUTION:

It is possible to exceed lateral CG limits in some configurations.

VI INSTALLATION / REMOVAL INSTRUCTIONS

The beams are installed in accordance with 78601. The basket is installed in accordance with drawing 76401, 77601 or 78401, as applicable. Removal of the basket leaving the beams in place is an approved configuration for flight. Logbook entry indicating installation or removal of basket and which weight and balance amendment is in effect is required when basket is installed or removed.

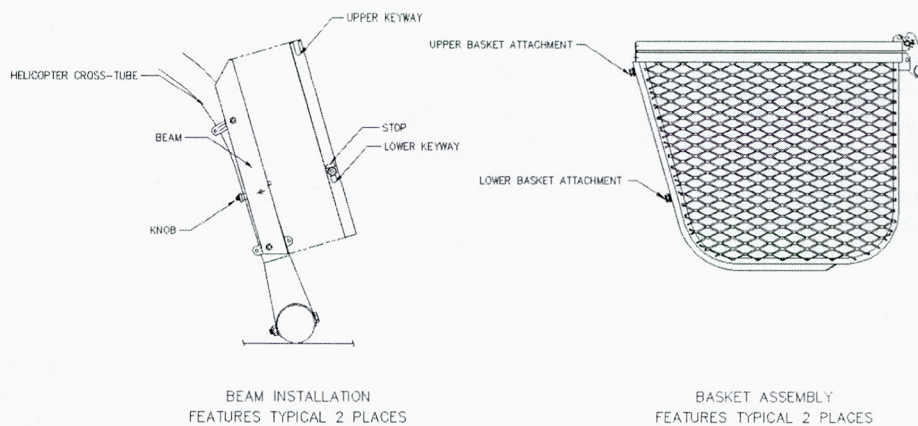


Figure 1 – Basket Attachment Features (Low beam installation shown. Beam attachment features typical for low and high beam installations)

1. Installation - Refer to Figure 1 and Figure 2.
 - a) Set basket upper attachment into upper keyway in forward and aft beams.
 - b) At forward attachment hoop, lift basket until lower attachment fitting hits stop.
 - c) Push fitting into keyway and slide basket down until locked.
 - d) Repeat step a,b and c for aft attachment hoop.

2. Removal - Refer to Figure 1 and Figure 2.

- a) Pull knob at bottom end of forward beam and lift basket until lower attachment fitting is free of keyway. Keep upper basket attachment in keyway on beam.
- b) Pull knob at bottom end of aft beam and lift basket until lower attachment fitting is free of keyway. Keep upper basket attachment in keyway on beam.
- c) Lift basket until upper attachments are out of keyways on both beams and remove basket from helicopter

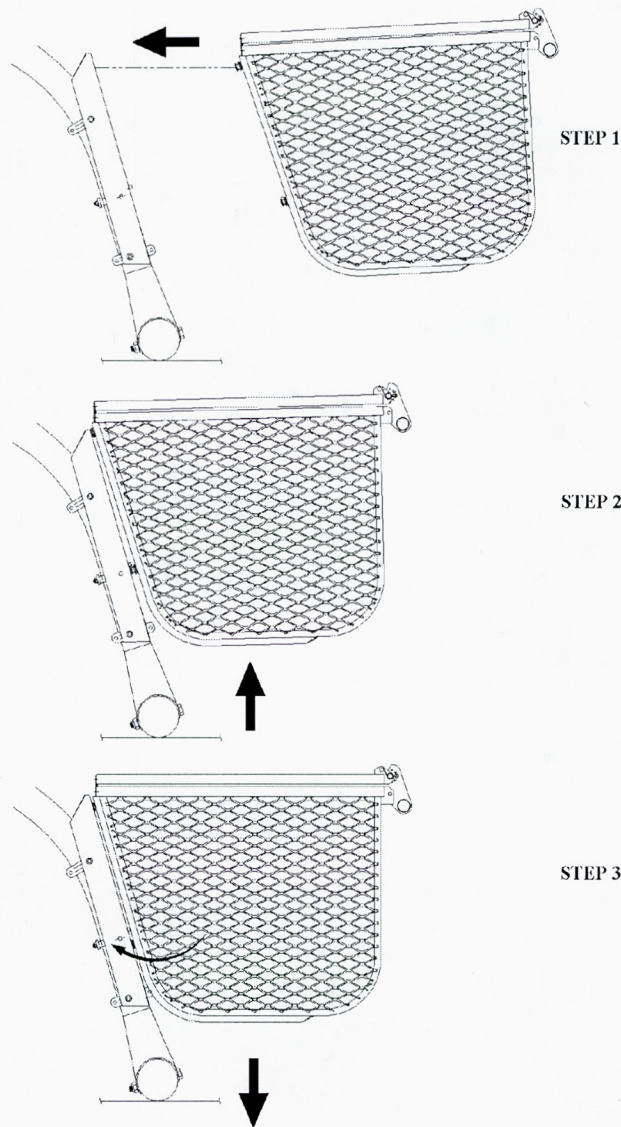




Figure 2 – Basket Attachment Steps (Low basket installation shown. Installation instructions typical for low and high basket installation).

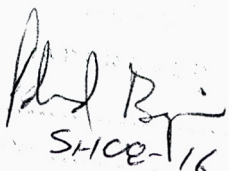
DOCUMENT CONTROL LIST

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INSTALLATION DOCUMENTS		
76401	Quick Release Cargo Basket Installation	1
ICA764.90	Instructions for Continued Airworthiness	0
FMS764.91	Flight Manual Supplement	1
FABRICATION DOCUMENTS		
DCL764-3	Document Control List - Basket Assembly	1
ENGINEERING DOCUMENTS		
<div> <div> APPROVAL:  Transport Canada E. BURCOIN DAR 2803 APPROVED By <i>[Signature]</i> Appr No. <u>SH08-16</u> Appr Date <u>April 11, 2008</u> Issue No. <u>1</u> Issue Date <u>April 11, 2008</u> </div> <div> ORIGINAL DATE: 06 March 2008 REVISION DATE: 05 March 2009 </div> <div> AERO DESIGN LTD. 2013 – 39th Ave NE, Calgary, Alberta, T2E 6R7 Ph. (403) 250-8027 Fax. (403) 250-8333 </div> </div>		
SHEET 1 OF 1		Eurocopter AS350 & AS355 Series Quick Release Cargo Basket Installation
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DOCUMENT CONTROL LIST

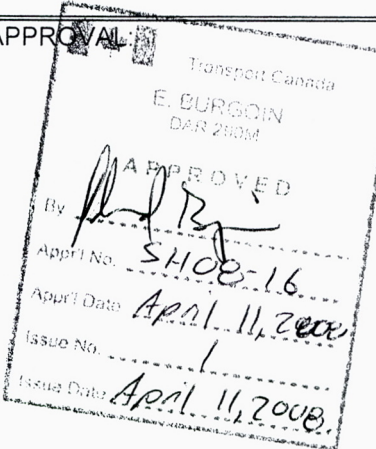
DOCUMENT NO.	DOCUMENT CONTENT	REVISION
INSTALLATION DOCUMENTS		
FABRICATION DOCUMENTS		
76410	Basket Assembly	1
76411	Basket Body Assembly	1
69812	Lid Assembly	1
76421	Hoop	0
76422	Hoop Assembly	0
76423	Hoop Assembly	1
76427	Placard	0
69823	Lug	1
69824	Rim	0
49212	Rim	0
49213	Lid Brace	1
49215	Spacer	0
49216	Spacer	0
36255	Handle Assembly	1
36261	Handle Bar Assembly	4
36262	Handle Bracket Assembly	1
36271	Handle Lever	1
36272	Basket Bracket	1
36273	Lid Bracket	1
36274	Bushing	1
36275	Bushing	2
36277	Handle Bar	0
36278	Spring	2
36280	Brace Assembly	2
ENGINEERING DOCUMENTS		
ER764.01	Engineering Report	0
TP764.02	Test Plan/Report	0
FTP764.03	Flight Test Plan/Report	0
APPROVAL:		
	ORIGINAL DATE: 06 March 2008	AERO DESIGN LTD. 2013 – 39 th Ave NE, Calgary, Alberta, T2E 6R7 Ph. (403) 250-8027 Fax. (403) 250-8333
	REVISION DATE: 05 March 2009	
	SHEET 1 OF 1	Eurocopter AS350 & AS355 Series Quick Release Cargo Basket Basket Assembly
DCL764-3		Rev. 1

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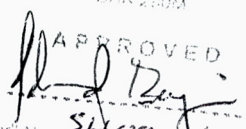
DOCUMENT NO.	DOCUMENT CONTENT	REVISION
INSTALLATION DOCUMENTS		
77601	Quick Release Cargo Basket Installation	1
ICA764.90	Instructions for Continued Airworthiness	0
FMS764.91	Flight Manual Supplement	1
FABRICATION DOCUMENTS		
DCL776-3	Document Control List - Basket Assembly	0
ENGINEERING DOCUMENTS		
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SHEET 1 OF 1		Eurocopter AS350 & AS355 Series Quick Release Cargo Basket Installation
DCL776-1		Rev. 1

DOCUMENT CONTROL LIST

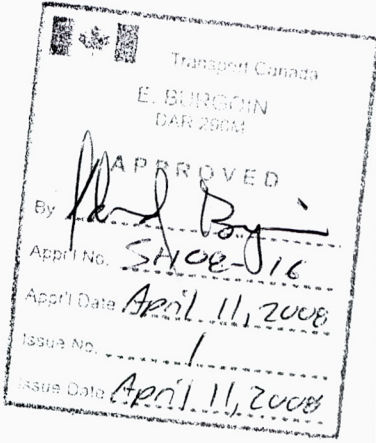
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INSTALLATION DOCUMENTS		
77602	Quick Release Cargo Basket Installation	1
ICA764.90	Instructions for Continued Airworthiness	0
FMS764.91	Flight Manual Supplement	1
FABRICATION DOCUMENTS		
DCL776-3	Document Control List - Basket Assembly	0
ENGINEERING DOCUMENTS		

APPROVAL 	ORIGINAL DATE: 06 March 2008	AERO DESIGN LTD. 2013 – 39 th Ave NE, Calgary, Alberta, T2E 6R7 Ph. (403) 250-8027 Fax. (403) 250-8333
	REVISION DATE: 05 March 2009	
	SHEET 1 OF 1	Eurocopter AS350 & AS355 Series Quick Release Cargo Basket Installation
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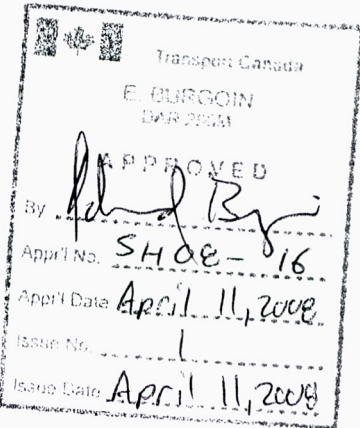
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DOCUMENT NO.	DOCUMENT CONTENT	REVISION
INSTALLATION DOCUMENTS		
78401	Quick Release Cargo Basket Installation	1
ICA764.90	Instructions for Continued Airworthiness	0
FMS764.91	Flight Manual Supplement	1
FABRICATION DOCUMENTS		
DCL784-3	Document Control List - Basket Assembly	1
ENGINEERING DOCUMENTS		
<div> <div> APPROVAL:  Transport Canada E. BURGOIN DAR 200M APPROVED By:  Appr'l No. SH08-16 Appr'l Date April 11, 2008 Issue No. 1 Issue Date April 11, 2008 </div> <div> ORIGINAL DATE: 06 March 2008 REVISION DATE: 05 March 2009 </div> <div> AERO DESIGN LTD. 2013 - 39th Ave NE, Calgary, Alberta, T2E 6R7 Ph. (403) 250-8027 Fax. (403) 250-8333 </div> </div>		
SHEET 1 OF 1		Eurocopter AS350 & AS355 Series Quick Release Cargo Basket Installation
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DOCUMENT CONTROL LIST

DOCUMENT NO.	DOCUMENT CONTENT	REVISION
INSTALLATION DOCUMENTS		
78402	Quick Release Cargo Basket Installation	1
ICA764.90	Instructions for Continued Airworthiness	0
FMS764.91	Flight Manual Supplement	1
FABRICATION DOCUMENTS		
DCL784-3	Document Control List - Basket Assembly	1
ENGINEERING DOCUMENTS		
APPROVAL:		
 <p>Transport Canada E. BURGON DAR 290M</p> <p>APPROVED</p> <p>By: <i>[Signature]</i></p> <p>App'l No. <i>SH08-016</i></p> <p>App'l Date <i>April 11, 2008</i></p> <p>Issue No. <i>1</i></p> <p>Issue Date <i>April 11, 2008</i></p>	ORIGINAL DATE: 06 March 2008	AERO DESIGN LTD. 2013 – 39 th Ave NE, Calgary, Alberta, T2E 6R7 Ph. (403) 250-8027 Fax. (403) 250-8333
	REVISION DATE: 05 March 2009	
	SHEET 1 OF 1	Eurocopter AS350 & AS355 Series Quick Release Cargo Basket Installation
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DOCUMENT CONTROL LIST



DOCUMENT NO.	DOCUMENT CONTENT	REVISION
INSTALLATION DOCUMENTS		
FABRICATION DOCUMENTS		
78410	Basket Assembly	0
78411	Basket Body Assembly	1
78412	Lid Assembly	0
76421	Hoop	0
76422	Hoop Assembly	0
76423	Hoop Assembly	1
78427	Placard	0
78428	Placard	0
69823	Lug	1
49215	Spacer	0
49216	Spacer	0
36255	Handle Assembly	1
36261	Handle Bar Assembly	4
36262	Handle Bracket Assembly	1
36271	Handle Lever	1
36272	Basket Bracket	1
36273	Lid Bracket	1
36274	Bushing	1
36275	Bushing	2
36277	Handle Bar	0
36278	Spring	2
36280	Brace Assembly	2
ENGINEERING DOCUMENTS		
ER764.01	Engineering Report	0
TP764.02	Test Plan/Report	0
FTP764.03	Flight Test Plan/Report	0
APPROVAL:		
	ORIGINAL DATE: 06 March 2008	AERO DESIGN LTD. 2013 – 39 th Ave NE, Calgary, Alberta, T2E 6R7 Ph. (403) 250-8027 Fax. (403) 250-8333
	REVISION DATE: 05 March 2009	
	SHEET 1 OF 1	Eurocopter AS350 & AS355 Series Quick Release Cargo Basket Basket Assembly
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DOCUMENT CONTROL LIST

DOCUMENT NO.	DOCUMENT CONTENT	REVISION
INSTALLATION DOCUMENTS		
78601	Basket Installation Provision	1
ICA764.90	Instructions for Continued Airworthiness	0
FABRICATION DOCUMENTS		
DCL786-3	Document Control List - Provision Assembly	1
ENGINEERING DOCUMENTS		
<div> <div> APPROVAL:  Transport Canada E. BURGOIN DAR 290M APPROVED By:  Appl No. SHOE-016 Appl Date April 11, 2008 Issue No. 1 Issue Date April 11, 2008 </div> <div> ORIGINAL DATE: 06 March 2008 REVISION DATE: 05 March 2009 </div> <div> AERO DESIGN LTD. 2013 - 39th Ave NE, Calgary, Alberta, T2E 6R7 Ph. (403) 250-8027 Fax. (403) 250-8333 </div> </div>		
SHEET 1 OF 1		Rev.
DCL786-1		1

**Eurocopter AS350 & AS355 Series
Basket Provision
Installation**

DOCUMENT CONTROL LIST

DOCUMENT NO.	DOCUMENT CONTENT	REVISION
INSTALLATION DOCUMENTS		
FABRICATION DOCUMENTS		
78620	Clamp Assembly	0
78630	Low Beam Fabrication	0
78631	High Beam Fabrication	1
ENGINEERING DOCUMENTS		
ER764.01	Engineering Report	0
TR764.02	Load Test Plan/Report	0
FTP764.03	Flight Test Plan/Report	0
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	SHEET 1 OF 1	Eurocopter AS350 & AS355 Series Basket Installation Provision Assembly
	DCL786-3	Rev. 1

FORM AE-100

DEPARTMENT OF TRANSPORT STATEMENT OF COMPLIANCE OF AIRCRAFT OR AIRCRAFT COMPONENTS WITH THE AIRWORTHINESS REQUIREMENTS		AE-100 No.: AE764-1 Initial Issue Date: 20 March, 2008 Revision: 1 Revision Date: 05 March 2009
Aircraft Mfr: Eurocopter Aircraft Model: AS350 & AS355 Series Registration: ALL ELIGIBLE	Model / Type Airplane <input type="checkbox"/> Helicopter <input checked="" type="checkbox"/> Appliance <input type="checkbox"/> Component <input type="checkbox"/>	Approval No.: SH08-16 Delegation No.: 290M Delegate Name: E. Burgoin Company: AERO Design Ltd.

LIST OF APPROVED REPORTS AND DATA


Document Number	Revision	Document Title	Compliance Status
DCL764-1 76401	1 1	Document Control List and all documents referred to therein Quick Release Cargo Basket Installation	As per Compliance Program, CP764, Revision 0
DATA APPROVED BY TRANSPORT CANADA			
ICA764.90 FMS764.91	0 1	Instructions for Continued Airworthiness Flight Manual Supplement	

CERTIFICATION

UNDER THE AUTHORITY VESTED IN ME BY THE DEPARTMENT OF TRANSPORT, I HEREBY CERTIFY THAT THE DATA LISTED ABOVE AND ON THE ATTACHED SHEETS NUMBERED Nil HAVE BEEN EXAMINED IN ACCORDANCE WITH ESTABLISHED PROCEDURES AND FOUND TO COMPLY, TO THE BEST OF MY KNOWLEDGE AND BELIEF WITH THE PERTINENT COMPLIANCE REQUIREMENTS.

I THEREFORE ☐ RECOMMEND FOR APPROVAL OF THESE DATA

☒ APPROVE THESE DATA


 E. Burgoin, DAR 290M

FORM AE-100

DEPARTMENT OF TRANSPORT STATEMENT OF COMPLIANCE OF AIRCRAFT OR AIRCRAFT COMPONENTS WITH THE AIRWORTHINESS REQUIREMENTS		AE-100 No.: AE764-3 Initial Issue Date: 20 March, 2008 Revision: 1 Revision Date: 05 March 2009
Aircraft Mfr: Eurocopter Aircraft Model: AS350 & AS355 Series Registration: ALL ELIGIBLE	Model / Type Airplane <input type="checkbox"/> Helicopter <input checked="" type="checkbox"/> Appliance <input type="checkbox"/> Component <input type="checkbox"/>	Approval No.: SH08-16 Delegation No.: 290M Delegate Name: E. Burgoin Company: AERO Design Ltd.

LIST OF APPROVED REPORTS AND DATA

Document Number	Revision	Document Title	Compliance Status
DCL764-3	1	Document Control List and all documents referred to therein	As per Compliance Program, CP764, Revision 0
ER764.01	0	Engineering Report	
TR764.02	0	Load Test Plan / Report	
FTP764.03	0	Flight Test Plan / Report	
76410	1	Basket Assembly	
76411	1	Basket Body Assembly	
69812	1	Lid Assembly	
76421	0	Hoop	
76422	0	Hoop Assembly	
77627	0	Placard	
69823	1	Lug	
49215	0	Spacer	
49216	0	Spacer	
36255	1	Handle Assembly	
36261	4	Handle Bar Assembly	
36262	1	Handle Bracket Assembly	
36271	1	Handle Lever	
36272	1	Basket Bracket	
36273	1	Lid Bracket	
36274	1	Bushing	
36275	2	Bushing	
36277	0	Handle Bar	
36278	2	Spring	
36280	2	Brace Assembly	
49213	1	Lid Brace	
69824	0	Rim	
49212	0	Rim	
76423	1	Hoop Assembly	


DATA APPROVED BY TRANSPORT CANADA

CERTIFICATION

UNDER THE AUTHORITY VESTED IN ME BY THE DEPARTMENT OF TRANSPORT, I HEREBY CERTIFY THAT THE DATA LISTED ABOVE AND ON THE ATTACHED SHEETS NUMBERED Nil HAVE BEEN EXAMINED IN ACCORDANCE WITH ESTABLISHED PROCEDURES AND FOUND TO COMPLY, TO THE BEST OF MY KNOWLEDGE AND BELIEF WITH THE PERTINENT COMPLIANCE REQUIREMENTS.

I THEREFORE ☐ RECOMMEND FOR APPROVAL OF THESE DATA

☒ APPROVE THESE DATA



E. Burgoin, DAR 290M

FORM AE-100

DEPARTMENT OF TRANSPORT STATEMENT OF COMPLIANCE OF AIRCRAFT OR AIRCRAFT COMPONENTS WITH THE AIRWORTHINESS REQUIREMENTS		AE-100 No.: AE776-1 Initial Issue Date: 20 March, 2008 Revision: 1 Revision Date: 05 March 2009
Aircraft Mfr: Eurocopter Aircraft Model: AS350 & AS355 Series Registration: ALL ELIGIBLE	Model / Type Airplane <input type="checkbox"/> Helicopter <input checked="" type="checkbox"/> Appliance <input type="checkbox"/> Component <input type="checkbox"/>	Approval No.: SH08-16 Delegation No.: 290M Delegate Name: E. Burgoin Company: AERO Design Ltd.

LIST OF APPROVED REPORTS AND DATA

Document Number	Revision	Document Title	Compliance Status
DCL776-1 77601	1 1	Document Control List and all documents referred to therein Quick Release Cargo Basket Installation	As per Compliance Program, CP764, Revision 0
DATA APPROVED BY TRANSPORT CANADA			
ICA764.90 FMS764.91	0 1	Instructions for Continued Airworthiness Flight Manual Supplement	

CERTIFICATION

UNDER THE AUTHORITY VESTED IN ME BY THE DEPARTMENT OF TRANSPORT, I HEREBY CERTIFY THAT THE DATA LISTED ABOVE AND ON THE ATTACHED SHEETS NUMBERED Nil HAVE BEEN EXAMINED IN ACCORDANCE WITH ESTABLISHED PROCEDURES AND FOUND TO COMPLY, TO THE BEST OF MY KNOWLEDGE AND BELIEF WITH THE PERTINENT COMPLIANCE REQUIREMENTS.

I THEREFORE ☐ RECOMMEND FOR APPROVAL OF THESE DATA

☒ APPROVE THESE DATA



E. Burgoin, DAR 290M

FORM AE-100

DEPARTMENT OF TRANSPORT STATEMENT OF COMPLIANCE OF AIRCRAFT OR AIRCRAFT COMPONENTS WITH THE AIRWORTHINESS REQUIREMENTS		AE-100 No.: AE776-2 Initial Issue Date: 20 March, 2008 Revision: 1 Revision Date: 05 March 2009
Aircraft Mfr: Eurocopter Aircraft Model: AS350 & AS355 Series Registration: ALL ELIGIBLE	Model / Type Airplane <input type="checkbox"/> Helicopter <input checked="" type="checkbox"/> Appliance <input type="checkbox"/> Component <input type="checkbox"/>	Approval No.: SH08-16 Delegation No.: 290M Delegate Name: E. Burgoin Company: AERO Design Ltd.

LIST OF APPROVED REPORTS AND DATA

Document Number	Revision	Document Title	Compliance Status
DCL776-2 77602	1 1	Document Control List and all documents referred to therein Quick Release Cargo Basket Installation	As per Compliance Program, CP764, Revision 0
DATA APPROVED BY TRANSPORT CANADA			
ICA764.90 FMS764.91	0 1	Instructions for Continued Airworthiness Flight Manual Supplement	

CERTIFICATION

UNDER THE AUTHORITY VESTED IN ME BY THE DEPARTMENT OF TRANSPORT, I HEREBY CERTIFY THAT THE DATA LISTED ABOVE AND ON THE ATTACHED SHEETS NUMBERED Nil HAVE BEEN EXAMINED IN ACCORDANCE WITH ESTABLISHED PROCEDURES AND FOUND TO COMPLY, TO THE BEST OF MY KNOWLEDGE AND BELIEF WITH THE PERTINENT COMPLIANCE REQUIREMENTS.

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E. Burgoin, DAR 290M

FORM AE-100

DEPARTMENT OF TRANSPORT STATEMENT OF COMPLIANCE OF AIRCRAFT OR AIRCRAFT COMPONENTS WITH THE AIRWORTHINESS REQUIREMENTS		AE-100 No.: AE784-1 Initial Issue Date: 20 March, 2008 Revision: 1 Revision Date: 05 March 2009
Aircraft Mfr: Eurocopter Aircraft Model: AS350 & AS355 Series Registration: ALL ELIGIBLE	Model / Type Airplane <input type="checkbox"/> Helicopter <input checked="" type="checkbox"/> Appliance <input type="checkbox"/> Component <input type="checkbox"/>	Approval No.: SH08-16 Delegation No.: 290M Delegate Name: E. Burgoin Company: AERO Design Ltd.

LIST OF APPROVED REPORTS AND DATA

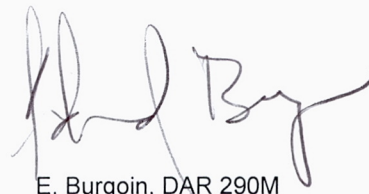
Document Number	Revision	Document Title	Compliance Status
DCL784-1 78401	1 1	Document Control List and all documents referred to therein Quick Release Cargo Basket Installation	As per Compliance Program, CP764, Revision 0
DATA APPROVED BY TRANSPORT CANADA			
ICA764.90 FMS764.91	0 1	Instructions for Continued Airworthiness Flight Manual Supplement	

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DEPARTMENT OF TRANSPORT STATEMENT OF COMPLIANCE OF AIRCRAFT OR AIRCRAFT COMPONENTS WITH THE AIRWORTHINESS REQUIREMENTS		AE-100 No.: AE784-2 Initial Issue Date: 20 March, 2008 Revision: 1 Revision Date: 05 March 2009	
Aircraft Mfr: Eurocopter Aircraft Model: AS350 & AS355 Series Registration: ALL ELIGIBLE	Model / Type Airplane <input type="checkbox"/> Helicopter <input checked="" type="checkbox"/> Appliance <input type="checkbox"/> Component <input type="checkbox"/>	Approval No.: SH08-16 Delegation No.: 290M Delegate Name: E. Burgoin Company: AERO Design Ltd.	
LIST OF APPROVED REPORTS AND DATA			
Document Number	Revision	Document Title	Compliance Status
DCL784-2 78402	1 1	Document Control List and all documents referred to therein Quick Release Cargo Basket Installation	As per Compliance Program, CP764, Revision 0
DATA APPROVED BY TRANSPORT CANADA			
ICA764.90 FMS764.91	0 1	Instructions for Continued Airworthiness Flight Manual Supplement	
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FORM AE-100

DEPARTMENT OF TRANSPORT STATEMENT OF COMPLIANCE OF AIRCRAFT OR AIRCRAFT COMPONENTS WITH THE AIRWORTHINESS REQUIREMENTS		AE-100 No.: AE784-3 Initial Issue Date: 20 March, 2008 Revision: 1 Revision Date: 05 March 2009	
Aircraft Mfr: Eurocopter Aircraft Model: AS350 & AS355 Series Registration: ALL ELIGIBLE	Model / Type Airplane <input type="checkbox"/> Helicopter <input checked="" type="checkbox"/> Appliance <input type="checkbox"/> Component <input type="checkbox"/>	Approval No.: SH08-16 Delegation No.: 290M Delegate Name: E. Burgoin Company: AERO Design Ltd.	
LIST OF APPROVED REPORTS AND DATA			
Document Number	Revision	Document Title	Compliance Status
DCL784-3	0	Document Control List and all documents referred to therein	As per Compliance Program, CP764, Revision 0
ER764.01	0	Engineering Report	
TR764.02	0	Load Test Plan / Report	
FTP764.03	0	Flight Test Plan / Report	
78410	0	Basket Assembly	
78411	1	Basket Body Assembly	
78412	0	Lid Assembly	
76421	0	Hoop	
76422	0	Hoop Assembly	
76423	1	Hoop Assembly	
78427	0	Placard	
78428	0	Placard	
69823	1	Lug	
49215	0	Spacer	
49216	0	Spacer	
36255	1	Handle Assembly	
36261	4	Handle Bar Assembly	
36262	1	Handle Bracket Assembly	
36271	1	Handle Lever	
36272	1	Basket Bracket	
36273	1	Lid Bracket	
36274	1	Bushing	
36275	2	Bushing	
36277	0	Handle Bar	
36278	2	Spring	
36280	2	Brace Assembly	
DATA APPROVED BY TRANSPORT CANADA			
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 E. Burgoin, DAR 290M			

FORM AE-100

DEPARTMENT OF TRANSPORT STATEMENT OF COMPLIANCE OF AIRCRAFT OR AIRCRAFT COMPONENTS WITH THE AIRWORTHINESS REQUIREMENTS		AE-100 No.: AE786-1 Initial Issue Date: 20 March, 2008 Revision: 1 Revision Date: 05 March 2009
Aircraft Mfr: Eurocopter Aircraft Model: AS350 & AS355 Series Registration: ALL ELIGIBLE	Model / Type Airplane <input type="checkbox"/> Helicopter <input checked="" type="checkbox"/> Appliance <input type="checkbox"/> Component <input type="checkbox"/>	Approval No.: SH08-16 Delegation No.: 290M Delegate Name: E. Burgoin Company: AERO Design Ltd.

LIST OF APPROVED REPORTS AND DATA

Document Number	Revision	Document Title	Compliance Status
DCL786-1 78601	1 1	Document Control List and all documents referred to therein Quick Release Cargo Basket Installation	As per Compliance Program, CP764, Revision 0
DATA APPROVED BY TRANSPORT CANADA			
ICA764.90	0	Instructions for Continued Airworthiness	

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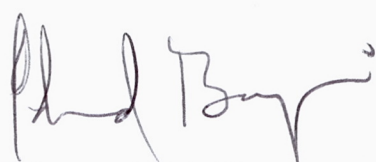
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E. Burgoin, DAR 290M

FORM AE-100

DEPARTMENT OF TRANSPORT STATEMENT OF COMPLIANCE OF AIRCRAFT OR AIRCRAFT COMPONENTS WITH THE AIRWORTHINESS REQUIREMENTS		AE-100 No.: AE786-3 Initial Issue Date: 20 March, 2008 Revision: 1 Revision Date: 05 march 2009	
Aircraft Mfr: Eurocopter Aircraft Model: AS350 & AS355 Series Registration: ALL ELIGIBLE	Model / Type Airplane <input type="checkbox"/> Helicopter <input checked="" type="checkbox"/> Appliance <input type="checkbox"/> Component <input type="checkbox"/>	Approval No.: SH08-16 Delegation No.: 290M Delegate Name: E. Burgoin Company: AERO Design Ltd.	
LIST OF APPROVED REPORTS AND DATA			
Document Number	Revision	Document Title	Compliance Status
DCL786-3	1	Document Control List and all documents referred to therein	As per Compliance Program, CP764, Revision 0
ER764.01	0	Engineering Report	
TR764.02	0	Load Test Plan / Report	
FTP764.03	0	Flight Test Plan / Report	
78620	0	Clamp Assembly	
78630	0	Low Beam Fabrication	
78631	1	High Beam Fabrication	
DATA APPROVED BY TRANSPORT CANADA			
CERTIFICATION UNDER THE AUTHORITY VESTED IN ME BY THE DEPARTMENT OF TRANSPORT, I HEREBY CERTIFY THAT THE DATA LISTED ABOVE AND ON THE ATTACHED SHEETS NUMBERED Nil HAVE BEEN EXAMINED IN ACCORDANCE WITH ESTABLISHED PROCEDURES AND FOUND TO COMPLY, TO THE BEST OF MY KNOWLEDGE AND BELIEF WITH THE PERTINENT COMPLIANCE REQUIRMENTS.			
I THEREFORE <input type="checkbox"/> RECOMMEND FOR APPROVAL OF THESE DATA <input checked="" type="checkbox"/> APPROVE THESE DATA			
 E. Burgoin, DAR 290M			

AS350 & AS355 SERIES HELICOPTERS

ROTORCRAFT FLIGHT MANUAL SUPPLEMENT for the INSTALLATION of the AERO DESIGN QUICK RELEASE CARGO BASKET AND/OR QUICK RELEASE MAINTENANCE STEP

**CARGO BASKET MODELS:
76401, 77601, 77602, 78401, 78402**

**QUICK RELEASE MAINTENANCE STEP MODELS:
82701, 82702**

Supplemental Type Certificate No. SH08-16

Sections I, II, III and IV of this document comprise the Transport Canada Approved sections of this Flight Manual Supplement. Compliance with Section I, Limitations, is mandatory. Section V and any subsequent sections if present are Unapproved and are provided for information only.

The information and data contained in this Flight Manual Supplement supersede or supplement that contained in the basic Approved Flight Manual for the Eurocopter AS350 and AS355 Series Helicopters when fitted with the Quick Release Cargo Basket Installation and/or Quick Release Maintenance Step Installation. For limitations, procedures and performance not listed in this Flight Manual Supplement refer to the Approved Flight Manual and other approved Flight Manual Supplements.

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III	Emergency Procedures	3
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Record of Revisions

Revision	Issue Date	Pages Revised	Date Inserted	By
0	25 Feb, 2008	None		
1	07 Nov, 2008	1, 2, 4-21		

I LIMITATIONS

1. The maximum load in the AERO Design Ltd. Quick Release Cargo Basket Models 764 and 784 is 200 lb. (90.5 kg). The maximum load in the AERO Design Ltd. Quick Release Cargo Basket Model 776 is 300 lb. (135.7 kg).
2. Only one basket may be installed on the helicopter, on the right or left side.
3. Flight operations limited to VFR conditions with AERO Design Ltd. Quick Release Cargo Basket installed.
4. V_{NE} is unchanged from the basic rotorcraft.
5. AS355NP only: For Category A operations, the basket must be removed. Mounting provisions may be left in place.

II NORMAL PROCEDURES

1. Pre-flight inspections:
 - a) Ensure that all cargo stored in the cargo basket is properly tied down and secured for flight.
 - b) Ensure that the lid of cargo basket is closed and secured.
 - c) Ensure the basket is locked in position on the beams. Pull up on the forward and aft end of the basket to check.

CAUTION

It is possible to exceed the lateral centre of gravity limits of the rotorcraft under some loading conditions. Pilots must ensure that lateral C of G is within limits when loading the basket.

III EMERGENCY PROCEDURES

No change from basic Approved Flight Manual.

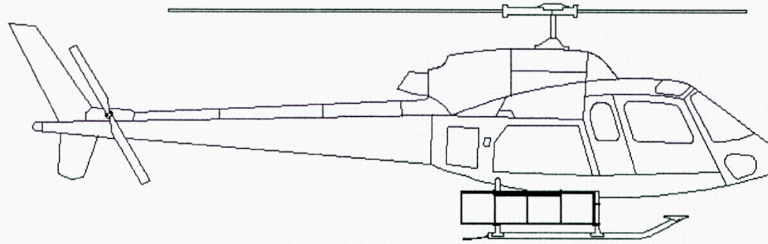
IV PERFORMANCE

1. Cruise performance and range will be reduced by approximately 8 percent with the Cargo Basket Installed.
2. AEO climb performance will be reduced by up to 150 fpm.

V WEIGHT AND BALANCE

This section contains weight and balance information for cargo basket models 76401, 77601, 77602, 78401 and 78402, and maintenance step models 82701 and 82702. Each model has multiple configurations. Refer to the weight and balance information applicable to model and configuration installed.

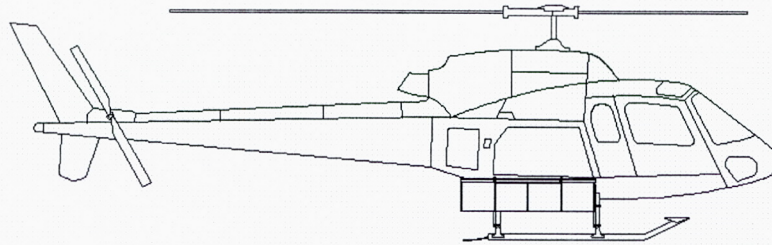
1. **MODEL 76401.** The following weight and balance is for the cargo basket installed in accordance with drawing 76401.



Quick Release Cargo Basket: Configuration 76401-01 (Low Mounted)

Item	Weight	Longitudinal		Lateral	
		Arm	Moment	Arm	Moment
76401-01-01 (RH) Basket Only ¹	45.0 lb 20.4 kg	144.9 in 3680.5 mm	6520.5 in*lb 74941.5 mm*kg	48.6 in 1234.7 mm	2187.5 in*lb 25 140.8 mm*kg
Cargo ² (RH) (MAX)	200 lb 90.5 kg	144.9 in 3680.5 mm	28 980 in*lb 333073.3 mm*kg	48.6 in 1234.7 mm	9722 in*lb 111 737.0 mm*kg

Item	Weight	Longitudinal		Lateral	
		Arm	Moment	Arm	Moment
76401-01-02 (LH) Basket Only ¹	45.0 lb 20.4 kg	144.9 in 3680.5 mm	6520.5 in*lb 74941.5 mm*kg	- 48.6 in - 1234.7 mm	- 2187.5 in*lb - 25 140.8 mm*kg
Cargo ² (LH) (MAX)	200 lb 90.5 kg	144.9 in 3680.5 mm	28 980 in*lb 333073.3 mm*kg	- 48.6 in - 1234.7 mm	- 9722 in*lb - 111 737.0 mm*kg

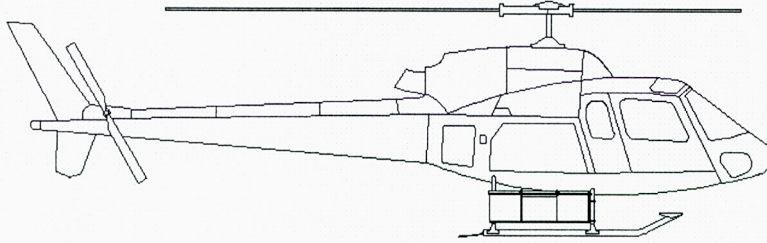


Quick Release Cargo Basket: Configuration 76401-02 (High Mounted)

Item	Weight	Longitudinal		Lateral	
		Arm	Moment	Arm	Moment
76401-02-01 (RH) Basket Only ¹	45.0 lb	144.9 in	6520.5 in*lb	46.3 in	2084.9 in*lb
	20.4 kg	3680.5 mm	74 941.5 mm*kg	1176.8 mm	23 961.6 mm*kg
Cargo ² (RH) (MAX)	200 lb	144.9 in	28980 in*lb	46.3 in	9266.0 in*lb
	90.5 kg	3680.5 mm	333073.3 mm*kg	1176.8 mm	106 496.1 mm*kg

Item	Weight	Longitudinal		Lateral	
		Arm	Moment	Arm	Moment
76401-02-02 (LH) Basket Only ¹	45.0 lb	144.9 in	6520.5 in*lb	- 46.3 in	- 2084.9 in*lb
	20.4 kg	3680.5 mm	74 941.5 mm*kg	- 1176.8 mm	- 23 961.6 mm*kg
Cargo ² (LH) (MAX)	200 lb	144.9 in	28980 in*lb	- 46.3 in	- 9266.0 in*lb
	90.5 kg	3680.5 mm	333073.3 mm*kg	- 1176.8 mm	- 106 496.1 mm*kg

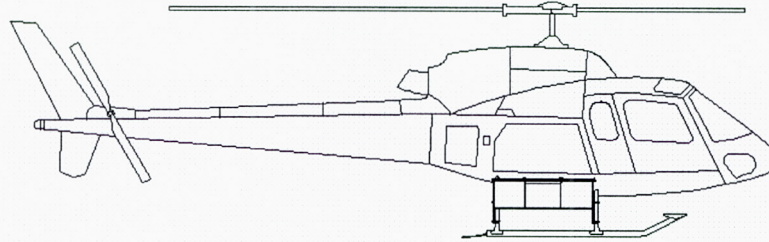
2. **MODEL 77601.** The following weight and balance is for the cargo basket installed in accordance with drawing 77601.



Quick Release Cargo Basket: Configuration 77601-01 (Low mounted)

Item	Weight	Longitudinal		Lateral	
		Arm	Moment	Arm	Moment
77601-01-01 (RH) Basket Only ¹	35.0 lb	135.7 in	4749.5 in*lb	49.2 in	1723.4 in*lb
	15.8 kg	3446.8 mm	54 587.0 mm*kg	1250.7 mm	19 807.4 mm*kg
Cargo ² (RH) (MAX)	300 lb	135.7 in	40710.0 in*lb	49.2 in	14760.0 in*lb
	135.7 kg	3446.8 mm	467730.8 mm*kg	1250.7 mm	169720.0 mm*kg

Item	Weight	Longitudinal		Lateral	
		Arm	Moment	Arm	Moment
77601-01-02 (LH) Basket Only ¹	35.0 lb	135.7 in	4749.5 in*lb	- 49.2 in	- 1723.4 in*lb
	15.8 kg	3446.8 mm	54 587.0 mm*kg	- 1250.7 mm	- 19 807.4 mm*kg
Cargo ² (LH) (MAX)	300 lb	135.7 in	40710.0 in*lb	- 49.2 in	- 14760.0 in*lb
	135.7 kg	3446.8 mm	467730.8 mm*kg	- 1250.7 mm	- 169720.0 mm*kg

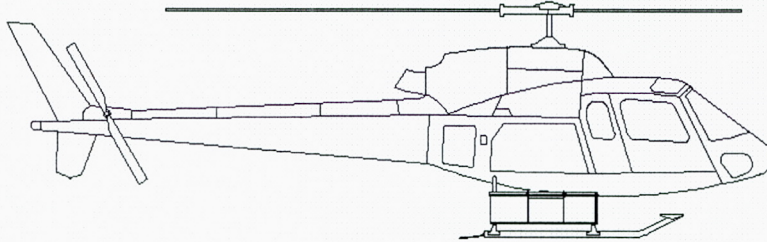


Quick Release Cargo Basket: Configuration 77601-02 (High mounted)

Item	Weight	Longitudinal		Lateral	
		Arm	Moment	Arm	Moment
77601-02-01 (RH) Basket Only ¹	35.0 lb	135.7 in	4749.5 in*lb	47.0 in	1643.6 in*lb
	15.8 kg	3446.8 mm	54 587.0 mm*kg	1192.8 mm	18 890.2 mm*kg
Cargo² (RH) (MAX)	300 lb	135.7 in	40710.0 in*lb	47.0 in	14100.0 in*lb
	135.7 kg	3446.8 mm	467730.8 mm*kg	1192.8 mm	161863.0 mm*kg

Item	Weight	Longitudinal		Lateral	
		Arm	Moment	Arm	Moment
77601-02-02 (LH) Basket Only ¹	35.0 lb	135.7 in	4749.5 in*lb	- 47.0 in	- 1643.6 in*lb
	15.8 kg	3446.8 mm	54 587.0 mm*kg	- 1192.8 mm	- 18 890.2 mm*kg
Cargo² (LH) (MAX)	300 lb	135.7 in	40710.0 in*lb	- 47.0 in	- 14100.0 in*lb
	135.7 kg	3446.8 mm	467730.8 mm*kg	- 1192.8 mm	- 161863.0 mm*kg

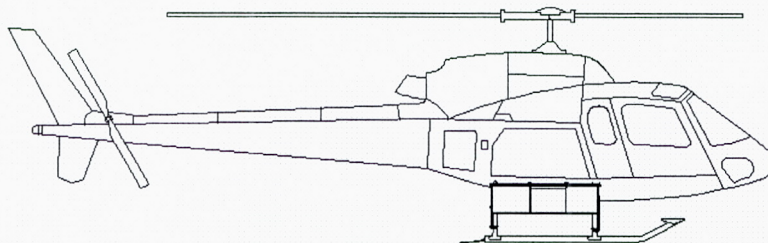
3. **MODEL 77602.** The following weight and balance is for the cargo basket installed in accordance with drawing 77602.



Quick Release Cargo Basket: Configuration 77602-01 (Low mounted)

Item	Weight	Longitudinal		Lateral	
		Arm	Moment	Arm	Moment
77602-01-01 (RH) Basket Only ¹	36.2 lb	133.6 in	4836.3 in*lb	49.2 in	1781.0 in*lb
	16.4 kg	3393.4 mm	55 584.9 mm*kg	1249.7 mm	20 469.9 mm*kg
Cargo ² (RH) (MAX)	300 lb	133.6 in	40080.0 in*lb	49.2 in	14760.0 in*lb
	135.7 kg	3393.4 mm	460484.4 mm*kg	1249.7 mm	169584.3 mm*kg

Item	Weight	Longitudinal		Lateral	
		Arm	Moment	Arm	Moment
77602-01-02 (LH) Basket Only ¹	36.2 lb	133.6 in	4836.3 in*lb	- 49.2 in	- 1781.0 in*lb
	16.4 kg	3393.4 mm	55 584.9 mm*kg	- 1249.7 mm	- 20 469.9 mm*kg
Cargo ² (LH) (MAX)	300 lb	133.6 in	40080.0 in*lb	- 49.2 in	- 14760.0 in*lb
	135.7 kg	3393.4 mm	460484.4 mm*kg	- 1249.7 mm	- 169584.3 mm*kg

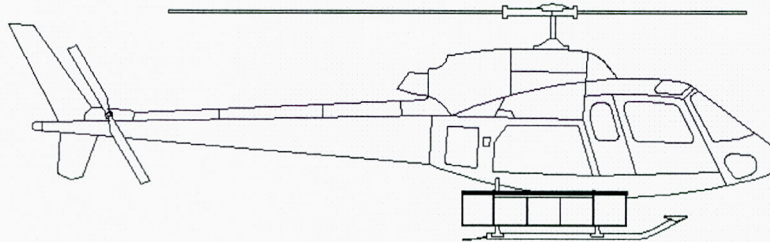


Quick Release Cargo Basket: Configuration 77602-02 (High mounted)

Item	Weight	Longitudinal		Lateral	
		Arm	Moment	Arm	Moment
77602-02-01 (RH) Basket Only ¹	36.2 lb	133.6 in	4836.3 in*lb	47.0 in	1700.0 in*lb
	16.4 kg	3393.4 mm	55 584.9 mm*kg	1192.8 mm	19 537.9 mm*kg
Cargo ² (RH) (MAX)	300 lb	133.6 in	40080.0 in*lb	47.0 in	14100.0 in*lb
	135.7 kg	3393.4 mm	460484.4 mm*kg	1192.8 mm	161863.0 mm*kg

Item	Weight	Longitudinal		Lateral	
		Arm	Moment	Arm	Moment
77602-02-02 (LH) Basket Only ¹	36.2 lb	133.6 in	4836.3 in*lb	- 47.0 in	- 1700.0 in*lb
	16.4 kg	3393.4 mm	55 584.9 mm*kg	- 1192.8 mm	- 19 537.9 mm*kg
Cargo ² (LH) (MAX)	300 lb	133.6 in	40080.0 in*lb	- 47.0 in	- 14100.0 in*lb
	135.7 kg	3393.4 mm	460484.4 mm*kg	- 1192.8 mm	- 161863.0 mm*kg

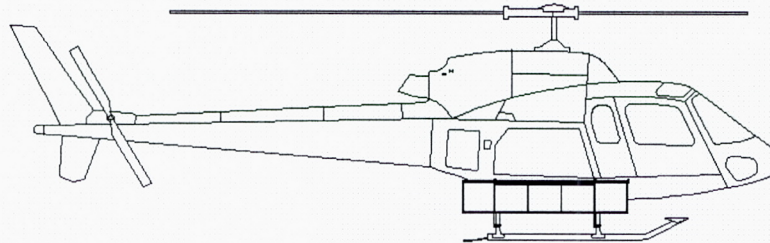
4. **MODEL 78401.** The following weight and balance is for the cargo basket installed in accordance with drawing 78401.



Quick Release Cargo Basket: Configuration 78401-01 (Low Mounted)

Item	Weight	Longitudinal		Lateral	
		Arm	Moment	Arm	Moment
78401-01-01 (RH) Basket Only ¹	55.0 lb	135.7 in	7463.5 in*lb	48.4 in	2659.8 in*lb
	24.9 kg	3446.8 mm	85 779.6 mm*kg	1228.3 mm	30 569.6 mm*kg
Cargo ² (RH) (MAX)	200 lb	135.7 in	27 140.0 in*lb	48.4 in	9672.0 in*lb
	90.5 kg	3446.8 mm	311 925.8 mm*kg	1228.3 mm	111 162.4 mm*kg

Item	Weight	Longitudinal		Lateral	
		Arm	Moment	Arm	Moment
78401-01-02 (LH) Basket Only ¹	55.0 lb	135.7 in	7463.5 in*lb	- 48.4 in	- 2659.8 in*lb
	24.9 kg	3446.8 mm	85 779.6 mm*kg	- 1228.3 mm	- 30 569.6 mm*kg
Cargo ² (LH) (MAX)	200 lb	135.7 in	27 140.0 in*lb	- 48.4 in	- 9672.0 in*lb
	90.5 kg	3446.8 mm	311 925.8 mm*kg	- 1228.3 mm	- 111 162.4 mm*kg

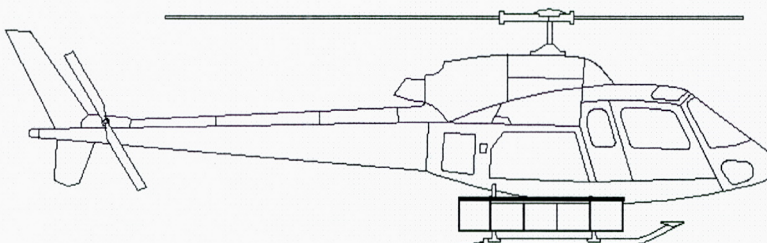


Quick Release Cargo Basket: Configuration 78401-02 (High Mounted)

Item	Weight	Longitudinal		Lateral	
		Arm	Moment	Arm	Moment
78401-02-01 (RH) Basket Only ¹	55.0 lb	135.7 in	7463.5 in*lb	46.1 in	2534.4 in*lb
	24.9 kg	3446.8 mm	85 779.6 mm*kg	1170.4 mm	29 128.4 mm*kg
Cargo ² (RH) (MAX)	200 lb	135.7 in	27 140.0 in*lb	46.1 in	9216.0 in*lb
	90.5 kg	3446.8 mm	311 925.8 mm*kg	1170.4 mm	105 921.4 mm*kg

Item	Weight	Longitudinal		Lateral	
		Arm	Moment	Arm	Moment
78401-02-02 (LH) Basket Only ¹	55.0 lb	135.7 in	7463.5 in*lb	- 46.1 in	- 2534.4 in*lb
	24.9 kg	3446.8 mm	85 779.6 mm*kg	- 1170.4 mm	- 29 128.4 mm*kg
Cargo ² (LH) (MAX)	200 lb	135.7 in	27 140.0 in*lb	- 46.1 in	- 9216.0 in*lb
	90.5 kg	3446.8 mm	311 925.8 mm*kg	- 1170.4 mm	- 105 921.4 mm*kg

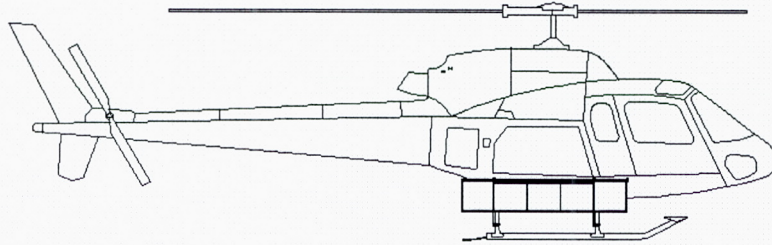
5. **MODEL 78402.** The following weight and balance is for the cargo basket installed in accordance with drawing 78402.



Quick Release Cargo Basket: Configuration 78402-01 (Low Mounted)

Item	Weight	Longitudinal		Lateral	
		Arm	Moment	Arm	Moment
78402-01-01 (RH) Basket Only ¹	60.0 lb	135.7 in	8142.0 in*lb	48.4 in	2901.6 in*lb
	27.1 kg	3446.8 mm	93 577.7 mm*kg	1228.3 mm	33 348.7 mm*kg
Cargo ² (RH) (MAX)	200 lb	135.7 in	35 850 in*lb	48.4 in	18 660 in*lb
	90.5 kg	3446.8 mm	27 140.0 mm*kg	1228.3 mm	111 162.4 mm*kg

Item	Weight	Longitudinal		Lateral	
		Arm	Moment	Arm	Moment
78402-01-02 (LH) Basket Only ¹	60.0 lb	135.7 in	8142.0 in*lb	- 48.4 in	- 2901.6 in*lb
	27.1 kg	3446.8 mm	93 577.7 mm*kg	- 1228.3 mm	- 33 348.7 mm*kg
Cargo ² (LH) (MAX)	200 lb	135.7 in	35 850 in*lb	- 48.4 in	- 18 660 in*lb
	90.5 kg	3446.8 mm	27 140.0 mm*kg	- 1228.3 mm	- 111 162.4 mm*kg

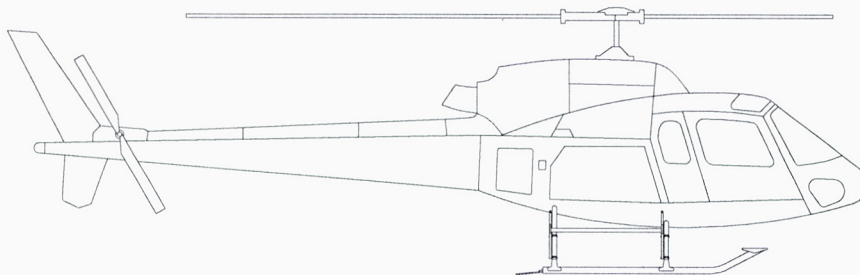


Quick Release Cargo Basket: Configuration 78402-02 (High Mounted)

Item	Weight	Longitudinal		Lateral	
		Arm	Moment	Arm	Moment
78402-02-01 (RH) Basket Only ¹	60.0 lb	135.7 in	8142.0 in*lb	46.1 in	2764.8 in*lb
	27.1 kg	3446.8 mm	93 577.7 mm*kg	1170.4 mm	31 776.4 mm*kg
Cargo ² (RH) (MAX)	200 lb	135.7 in	27 140.0 in*lb	46.1 in	9216.0 in*lb
	90.5 kg	3446.8 mm	311 925.8 mm*kg	1170.4 mm	105 921.4 mm*kg

Item	Weight	Longitudinal		Lateral	
		Arm	Moment	Arm	Moment
78402-02-02 (LH) Basket Only ¹	60.0 lb	135.7 in	8142.0 in*lb	- 46.1 in	- 2764.8 in*lb
	27.1 kg	3446.8 mm	93 577.7 mm*kg	- 1170.4 mm	- 31 776.4 mm*kg
Cargo ² (LH) (MAX)	200 lb	135.7 in	27 140.0 in*lb	- 46.1 in	- 9216.0 in*lb
	90.5 kg	3446.8 mm	311 925.8 mm*kg	- 1170.4 mm	- 105 921.4 mm*kg

6. **MAINTENANCE STEP 82701.** The following weight and balance is for the quick release maintenance step installed in accordance with drawing 82701. Upper and lower (stowed) positions are provided, either position is approved for flight.

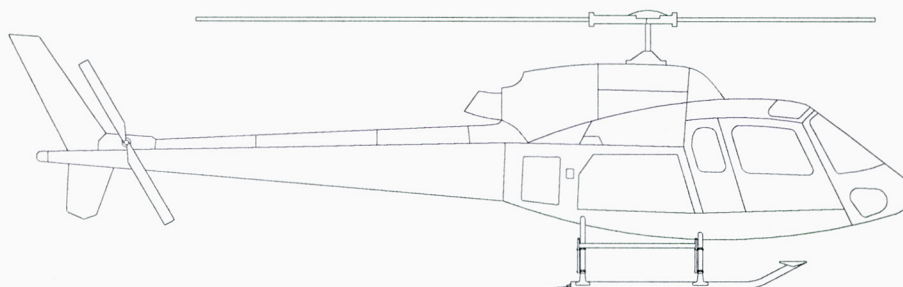


Maintenance Step: Configuration 82701-01 (High Mounted Provisions)

Item	Weight	Longitudinal		Lateral	
		Arm	Moment	Arm	Moment
82701-01 ¹ (upper position) (RH)	6.4 lb	135.7 in	868.5 in*lb	38.9 in	249.0 in*lb
	2.9 kg	3446.8 mm	9 979.8 mm*kg	988.0 mm	2 865.2 mm*kg
82701-01 ¹ (stowed position) (RH)	6.4 lb	135.7 in	868.5 in*lb	41.7 in	266.9 in*lb
	2.9 kg	3446.8 mm	9 979.8 mm*kg	1059.0 mm	3 071.1 mm*kg

Item	Weight	Longitudinal		Lateral	
		Arm	Moment	Arm	Moment
82701-01 ¹ (upper position) (LH)	6.4 lb	135.7 in	868.5 in*lb	- 38.9 in	- 249.0 in*lb
	2.9 kg	3446.8 mm	9 979.8 mm*kg	- 988.0 mm	- 2 865.2 mm*kg
82701-01 ¹ (stowed position) (RH)	6.4 lb	135.7 in	868.5 in*lb	- 41.7 in	- 266.9 in*lb
	2.9 kg	3446.8 mm	9 979.8 mm*kg	- 1059.0 mm	- 3 071.1 mm*kg

7. **MAINTENANCE STEP 82702.** The following weight and balance is for the maintenance step installed in accordance with drawing 82702.



Maintenance Step: Configuration 82702-01 (Low Mounted Provisions)

Item	Weight	Longitudinal		Lateral	
		Arm	Moment	Arm	Moment
82702-01 ¹ (upper position) (RH)	6.4 lb	135.7 in	868.5 in*lb	39.1 in	250.2 in*lb
	2.9 kg	3446.8 mm	9 979.8 mm*kg	993.1 mm	2 880.1 mm*kg

Item	Weight	Longitudinal		Lateral	
		Arm	Moment	Arm	Moment
82702-01 ¹ (upper position) (LH)	6.4 lb	135.7 in	868.5 in*lb	- 39.1 in	- 250.2 in*lb
	2.9 kg	3446.8 mm	9 979.8 mm*kg	- 993.1 mm	- 2 880.1 mm*kg

¹ Weight and balance is for Cargo Basket / Maintenance Step only. Mounting beams are not included since they should have been included in the basic rotorcraft weight and balance at time of initial installation.

² Longitudinal and Lateral moment arms are given only for the center of the Cargo Basket. Due to the length of the basket, some loading arrangements may require that actual moment arms be measured, to determine the correct moments about the center of gravity.

CAUTION:

It is possible to exceed lateral CG limits in some configurations.

VI INSTALLATION / REMOVAL INSTRUCTIONS

Cargo Baskets

The beams are installed in accordance with 78601. The basket is installed in accordance with drawing 76401, 77601 or 78401, as applicable. Removal of the basket leaving the beams in place is an approved configuration for flight. Logbook entry indicating installation or removal of basket and which weight and balance amendment is in effect is required when basket is installed or removed.

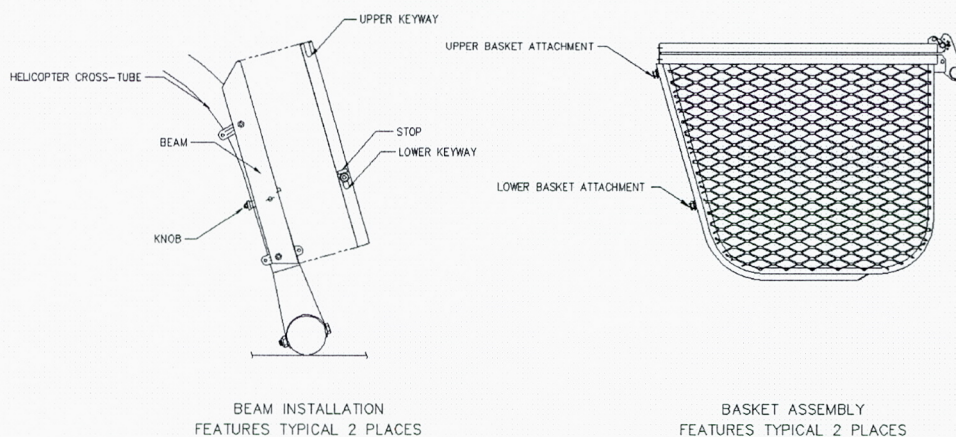


Figure 1 – Basket Attachment Features (Low beam installation shown. Beam attachment features typical for low and high beam installations)

8. Installation - Refer to Figure 1 and Figure 2.
 - a) Set basket upper attachment into upper keyway in forward and aft beams.
 - b) At forward attachment hoop, lift basket until lower attachment fitting hits stop.
 - c) Push fitting into keyway and slide basket down until locked.
 - d) Repeat step a,b and c for aft attachment hoop.

2. Removal - Refer to Figure 1 and Figure 2.

- a) Pull knob at bottom end of forward beam and lift basket until lower attachment fitting is free of keyway. Keep upper basket attachment in keyway on beam.
- b) Pull knob at bottom end of aft beam and lift basket until lower attachment fitting is free of keyway. Keep upper basket attachment in keyway on beam.
- c) Lift basket until upper attachments are out of keyways on both beams and remove basket from helicopter.

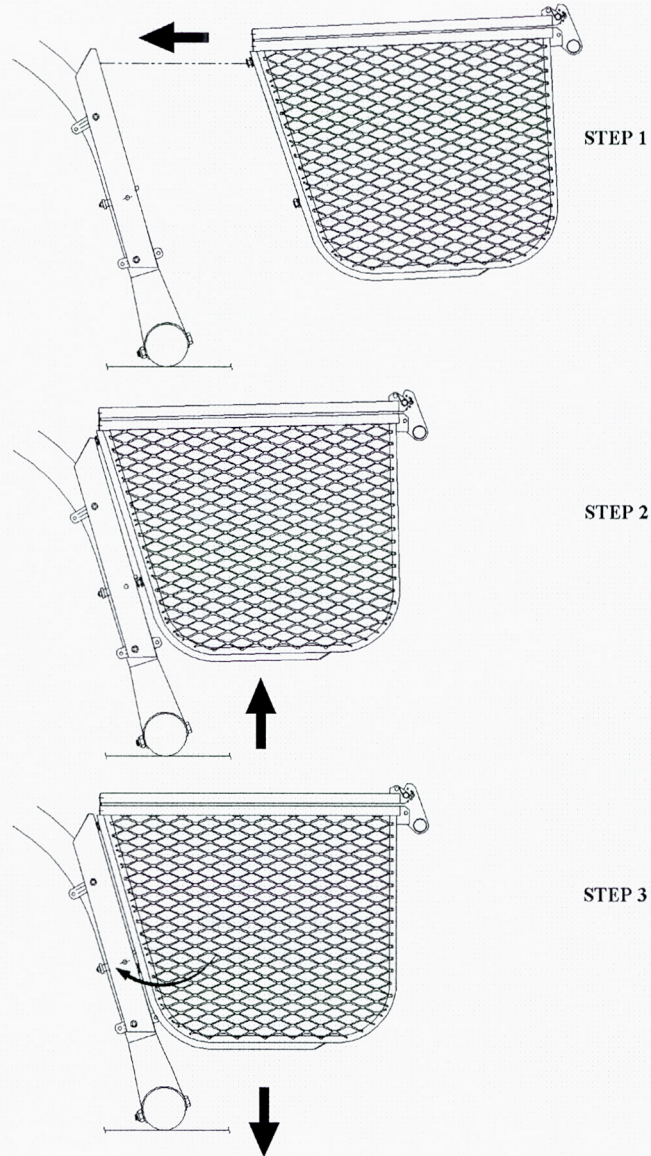


Figure 2 – Basket Attachment Steps (Low basket installation shown.
Installation instructions typical for low and high basket installation).

Maintenance Step

The beams are installed in accordance with 78601. The maintenance step is installed in accordance with drawing 82701 or 82702, as applicable. Removal of the step leaving the beams in place is an approved configuration for flight. Logbook entry indicating installation or removal of step and which weight and balance amendment is in effect is required when step is installed or removed.

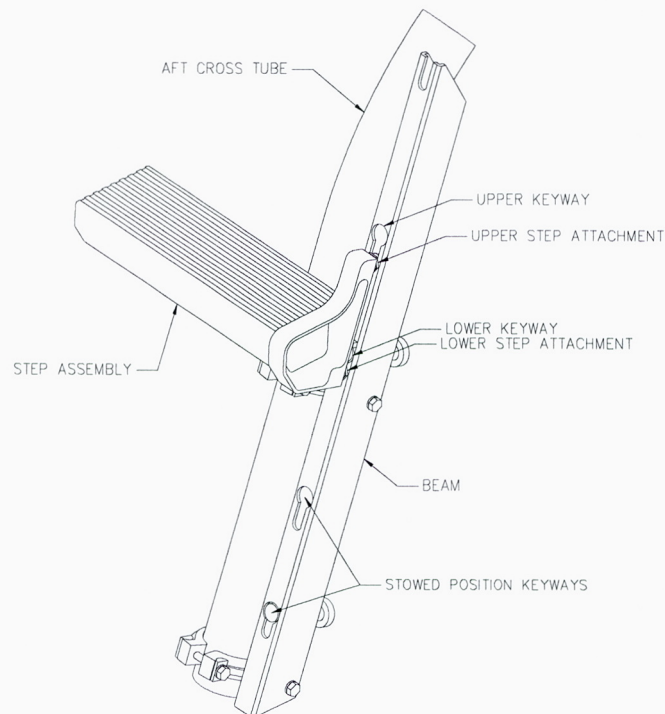


Figure 3 – Step Attachment Features

Figure 1 – Basket Attachment Features (High beam installation shown.
Stowed position is only available on High beam installation.)

1. Installation - Refer to Figure 3.
 - a) Set step upper attachment into upper keyway in forward and aft beams.
 - b) Lift step until lower attachment fitting hits stop.
 - c) Push fitting into keyway and slide basket down until locked.
2. Removal - Refer to Figure 1 and Figure 2.

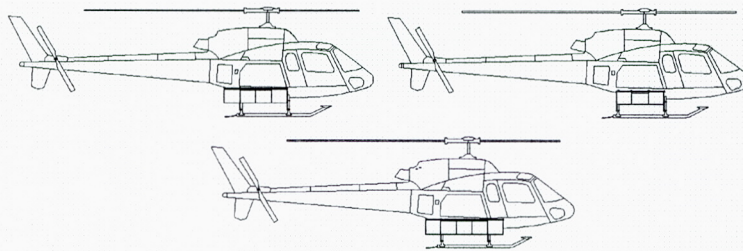
- a) Pull knob at bottom end of forward beam and lift step until lower attachment fitting is free of keyway. Keep upper attachment in keyway on beam.
- b) Pull knob at bottom end of aft beam and lift step until lower attachment fitting is free of keyway. Keep upper attachment in keyway on beam.
- c) Lift step until upper attachments are out of keyways on both beams and remove step from helicopter

INSTRUCTIONS FOR CONTINUED AIRWORTHINESS ICA 764.90

EUROCOPTER AS350 & AS355 SERIES

QUICK RELEASE CARGO BASKET

MODELS: 764, 776 AND 784



Preface

These Instructions for Continued Airworthiness shall be included in the rotorcraft Maintenance Manual when the Quick Release Cargo Basket installed in accordance with AERO Design Ltd. Document Control Lists:

- DCL764-1 (for Installation 76401), Revision 0,
- DCL776-1 (for Installation 77601), Revision 0,
- DCL776-2 (for Installation 77602), Revision 0,
- DCL784-1 (for Installation 78401), Revision 0,
- DCL784-2 (for Installation 78402), Revision 0, and
- DCL786-1 (for mounting provision), Revision 0, or later approved revision, is installed.

The information contained herein supplements the information in the basic Maintenance Manual. For Maintenance practices and procedures not contained in these Instructions for Continued Airworthiness refer to the basic Maintenance Manual and its approved supplements.

Revision 0
Date: 25 February, 2008

AERO Design Ltd.
Engineering Consultants

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RECORD OF REVISIONS

Revision Number	Issue Date	Date Inserted	By
0	25 February 2008		Original Issue

LIST OF EFFECTIVE PAGES

List of Revisions Revision 0 (Original Issue) 25 February, 2008

List of Effective Pages

<u>Description</u>	<u>Pages</u>	<u>Revision No.</u>
Cover	1	0
Revision Record/List of Effective Pages	2	0
Table of Contents	3	0
00-00-00	4-5	0
04-00-00	6	0
05-00-00	7-10	0
11-00-00	11	0
25-50-00	12-32	0

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CHAPTER 0 – INTRODUCTION

0-1 SCOPE

The following Instructions for Continued Airworthiness (ICA) satisfy the requirements of 14 CFR 27.1529, and provide the information necessary to complete the on-going maintenance and inspections required for rotorcraft embodying the Quick Release Cargo Basket as described herein.

0-2 DEFINITIONS AND ABBREVIATIONS

ICA - Instructions for Continued Airworthiness

LH - Left Hand

RH - Right Hand

0-3 DISTRIBUTION

Copies of this ICA and amendments shall be distributed to all known purchasers of the Quick Release Cargo Basket. Requests for a copy may be made in writing to:

AERO Design Ltd.
2013 39th Avenue N.E.
Calgary, Alberta
T2E 6R7
Fax: 403-250-8333
Email: info@aerodesign.ca

Any changes will be sent to Transport Canada. All changes will be recorded in the Record of Revisions page at the front of this document.

0-4 COMPATIBILITY

Prior to incorporating this modification, the installer shall establish that the inter-relationship between this change and any other modification(s) incorporated will not adversely affect the airworthiness of the helicopter.

0-5 GENERAL DESCRIPTION

The cargo basket installation is a metal mesh basket installed to the side of the helicopter on beams attached to the landing gear cross tubes. The quick release basket allows for the installation and removal of the basket without tools, allowing a pilot operating in the field without maintenance support to install or remove the basket, leaving the mounting beams in place.

The basket itself is made of a steel welded tubing structure, and lined with expanded steel mesh. The basket has a hinged lid with a self-locking handle.

The beams consist of a steel tube bolted to a clamp on the cross-tube. The quick release mechanism is built into the steel tube.

CHAPTER 4 - AIRWORTHINESS LIMITATIONS

The Airworthiness Limitations section is Transport Canada-approved and specifies maintenance required under Section 571 of the Canadian Aviation Regulations, unless an alternative program has been approved.

No additional airworthiness limitations have been imposed due the installation of the Quick Release Cargo Basket.

CHAPTER 5 – INSPECTION REQUIREMENTS

5-1 INSPECTION SCHEDULE

Continued airworthiness is contingent upon compliance with the following inspection items. These items shall be completed in conjunction with the rotorcraft Maintenance Inspection schedule, or other approved program, or upon removal and replacement of any component of Quick Release Cargo Basket.

Daily Inspection

1. Inspection Area: Basket

- a) Inspect the basket attachment to the beams for condition and security. Ensure quick release mechanism is completely extended, flush with the outboard surface of the beam.
- b) Inspect latching of the lid for correct operation. If basket is bent inward the lid will close but may not latch.

300 Hour or Annual Inspection

1. Inspection Area: Basket

- a) Visually inspect tube-to-tube welds and mesh-to-tube welds for cracks, corrosion or other damage.
- b) Visually inspect basket mesh for damage.

2. Inspection Area: Beams

With the basket removed:

- a) Visually inspect beams and clamps attaching basket to the helicopter for cracks, corrosion or other damage.
- b) Visually inspect lugs attaching the basket to the beams for security and damage.
- c) Visually inspect bolts attaching beams to clamps and clamps to cross tubes for condition and security.

Special Inspections

Following a hard landing inspect the Quick Release Cargo Basket installation in accordance with the 300 hour or annual inspection listed above.

5-2 DAMAGE LIMITS / REPAIR INSTRUCTIONS

If damage is found in the inspections above, repair in accordance with the instructions below.

1. Basket

- a) Repair Basket in accordance with AC43.13-1B, Chapter 4, Section 5, Welding, as required.

- b) Basket is fabricated from the following materials:

Attachment Hoops:	1" square steel tube and/or 1/2" square steel tube
Lid and Rim:	3/4" square steel tube
Frames:	1/2" square steel tube
Mesh:	3/4" 16 ga. (0.040") expanded steel mesh

- c) Touch up with polyurethane paint as required following repairs.

2. Steel Beams

DO NOT REPAIR DAMAGE TO BEAMS IF BEYOND THE LIMITS BELOW.

- a) Nicks and/or gouges on the inboard face up to 0.030" deep and 0.125" wide may be dressed out to a smooth contour.
- b) Nicks and/or gouges on the side and outboard faces up to 0.060" deep and 0.125" wide may be dressed out to a smooth contour.
- c) Critical keyway dimensions are shown in Figure 1. Attempt to insert 27/64 drill shank into bottom end of keyway. If drill can be inserted, slot is worn beyond limit.

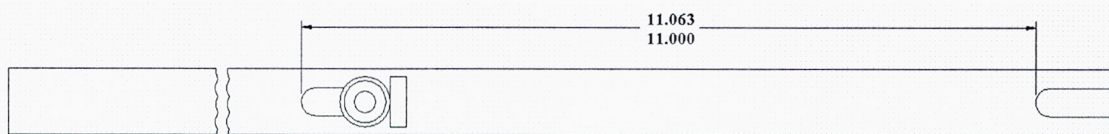


Figure 1 – Keyway dimensions – typical for low and high beam assemblies

- d) Touch up with polyurethane paint as required following repairs.

3. Aluminum Clamps

DO NOT REPAIR DAMAGE TO CLAMPS IF BEYOND THE LIMITS BELOW.

- a) Nicks and/or gouges on the top or bottom surface up to 0.060" deep and 0.125" wide may be dressed out to a smooth contour. Refer to Figure 2.
- b) Nicks and/or gouges on the outer edge up to 0.030" deep and 0.125" wide may be dressed out to a smooth contour. Refer to Figure 2.
- c) Any cracking on any surface is unacceptable.
- d) Touch up with polyurethane paint as required following repairs.

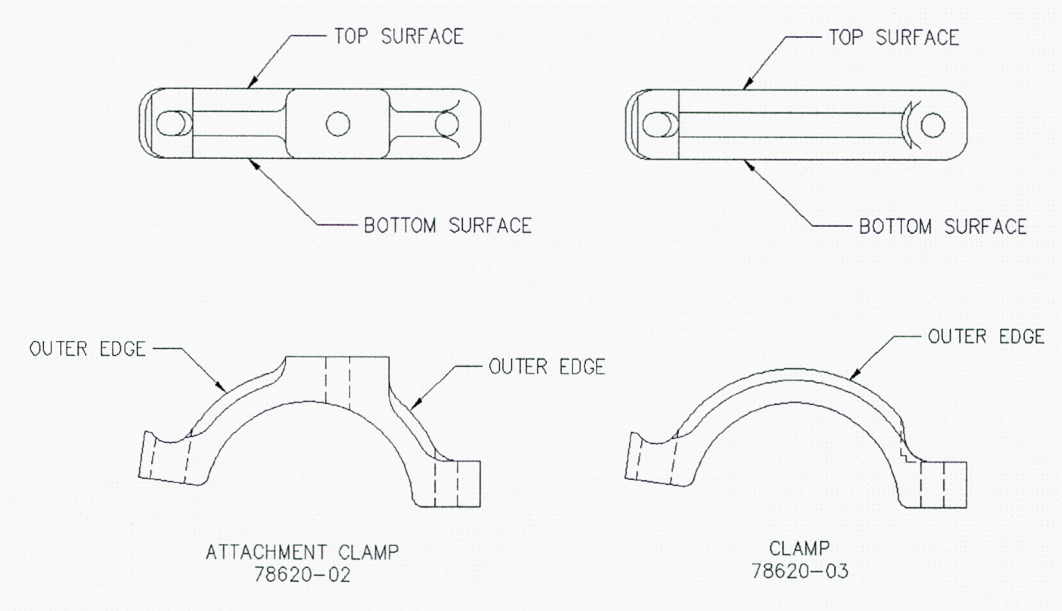


Figure 2 – Aluminum Clamps

5-3 PROTECTIVE TREATMENT INFORMATION

1. Beams

The steel tubes are supplied powder coated white. If the powder coat is damaged, touch up with white polyurethane paint.

2. Clamps

The aluminum clamps are supplied painted white. If the paint is damaged, touch up with white polyurethane paint.

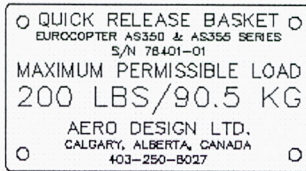
3. Cargo Basket

The cargo basket is supplied powder coated white. If the powder coat is damaged, touch up with white polyurethane paint.

CHAPTER 11 – MARKINGS AND PLACARDS

The following markings and placards are used with the Quick Release Cargo Basket Installation in the locations noted:

- a) Located on basket lid:



PLACARD FOR 76401 BASKET INSTALLATION



PLACARD FOR 77601 BASKET INSTALLATION



PLACARD FOR 77602 BASKET INSTALLATION



PLACARD FOR 78401 BASKET INSTALLATION



PLACARD FOR 78402 BASKET INSTALLATION

CHAPTER 25 – EQUIPMENT AND FURNISHINGS

SECTION 50 – CARGO COMPARTMENTS

The Quick Release Cargo Basket Installation may be applied to the right or left side of the helicopter.

25-1 BEAMS INSTALLATION

Refer to Figure AERO Design Ltd. Drawing 78601 and Figure 3.

1. Attach two (2) Attachment Clamps (78620-02) to each Beam Assembly (78630-01 for low installation, 78631-01 for high installation) with two (2) AN4-14A Bolts and two (2) AN960-416 Washers. Do not tighten bolts.
2. Locate the Beam Assemblies onto the forward and aft skid gear cross-tubes on the helicopter as shown in drawing 78601.
3. Position two (2) Clamps (78620-03) onto the Attachment Clamps (78620-02). Fasten together using an AN4-7A Bolt, AN960-416 and Curved Washer (78620-05) through on side of the Clamp Assembly and an AN4-20A Bolt, AN960-416 Washer and Barrel-nut (78620-04) through the other side of the Clamp Assembly. Tighten bolts enough to prevent slippage on the tube while adjusting installation in step 4.

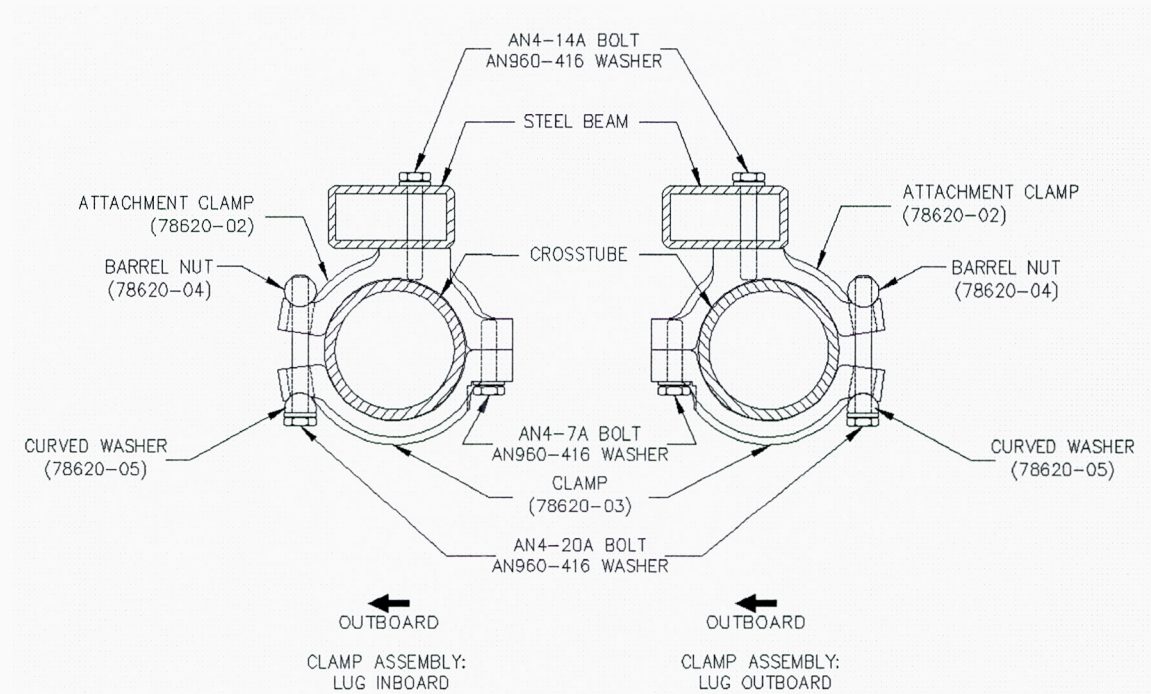


Figure 3 – Beam Installation – Clamp Detail
Lug Inboard and Lug Outboard Installations Shown

4. In order to easily snap the basket in and out of the beams, the beams must be correctly aligned. The following procedures provide corrective actions for the conditions noted. Ensure beams are approximately parallel and aligned

front to back before starting. For all procedures listed below, remove the basket before applying the correction and re-check after.

a. *Beams too far apart (basket cannot be installed in top slots):*

If the distance is less than 1/16": Rotate the forward beam slightly aft and/or the aft beam slightly forward until the basket can be set in the top slot of the beam.

If the distance is more than 1/16": Using AN970-4 washers, shim the FORWARD beam by inserting the washer(s) between the beam and both clamps. Only use enough shims to allow basket to enter the TOP slot.

b. *Beams too close together (basket cannot be installed in top slots):*

If the distance is less than 1/16": Rotate the forward beam slightly forward and/or the aft beam slightly aft until the basket can be set in the top slot of the beam.

If the distance is more than 1/16": Using AN970-4 washers, shim the AFT beam by inserting the washer(s) between the beam and both clamps. Only use enough shims to allow basket to enter the TOP slot.

c. *Basket in top slots, resting with bottom fitting against beams, one fitting is away from the surface of the beam:*

The beams are not parallel. Adjust the forward beam up or down the forward cross tube until both bottom fittings sit flat on the beams.

d. *Basket in top slots, resting with bottom fittings against beams, both fittings do not line up with keyway (same direction):*

The beams are not at the same height. Raise or lower the aft beam along the aft cross tube until the bottom fittings on the basket are aligned with both keyways.

e. *Basket in top slots, resting with bottom fittings against beams, one fitting does not line up with keyway:*

The landing gear cross tubes are not parallel. Using AN970-4 washers, shim the top or bottom (as required) to align the bottom fitting on the basket with the keyway.

5. Bolts attaching beams to clamps (AN4-14A) that have been shimmed require longer bolts. There must be at least 0.38" of thread left with shims in place.

1 washer – AN4-14A bolt (no change)

2-3 washers – AN4-15A bolt

4-5 washers – AN4-16A bolt

Shimming in excess of 5 washers may indicate incorrect alignment in step 4. Confirm corrective actions taken, and if shims are still required, contact AERO Design Ltd. for further instructions.

6. Torque all AN4 bolts (12 places) to 50-70 inch-pounds. Note: A gap will remain on the side of the clamp assembly with the barrel nut as shown in Drawing 78601 and Figure 3.

25-2 BEAMS REMOVAL

Refer to Figure 3.

1. Remove Cargo Basket. Refer to section 25-4.
2. Remove all AN4 Bolts, AN960-416 Washers and Clamps (78620-03) from the beam installation on the forward cross-tube. Remove Beam Assembly.
3. Remove all AN4 Bolts, AN960-416 Washers and Clamps (78620-03) from the beam installation on the aft cross-tube. Remove Beam Assembly.

25-3 BASKET INSTALLATION

Refer to Figure 4 and Figure 5.

1. Set basket upper attachment into upper keyway in forward and aft beams.
2. At forward attachment hoop, lift basket until lower attachment fitting hits stop.
3. Push fitting into keyway and slide basket down until locked.
4. Repeat step 2 and Step 3 for aft attachment hoop.

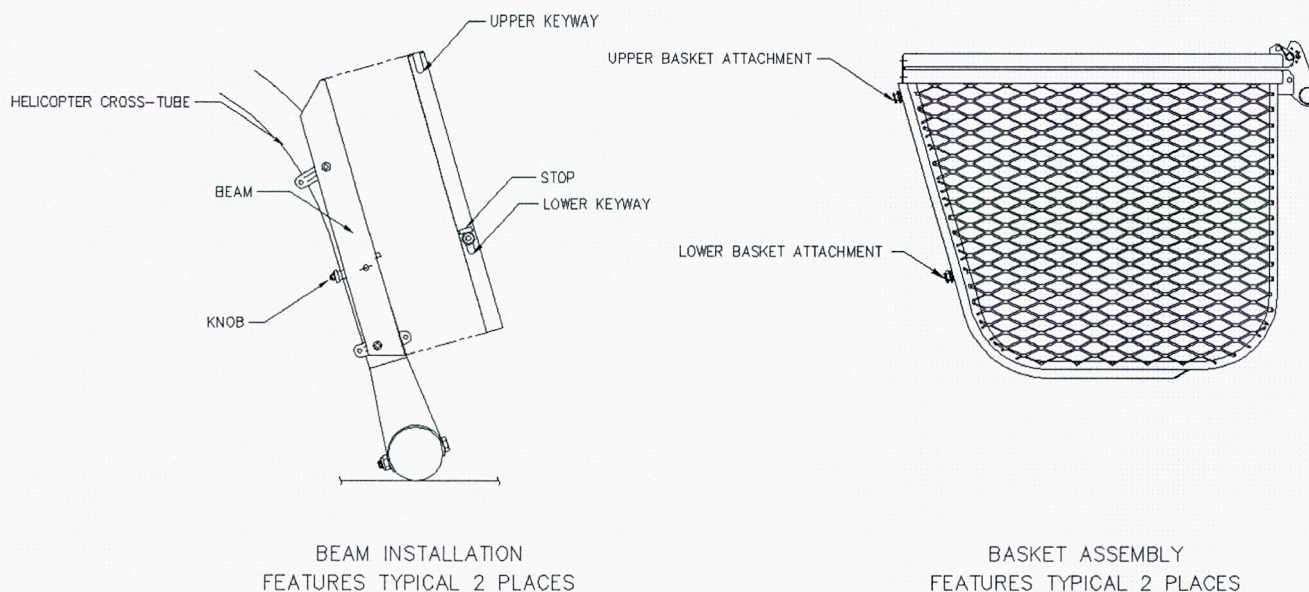


Figure 4 – Basket Attachment Features (Low beam installation shown. Beam attachment features typical for low and high beam installations)

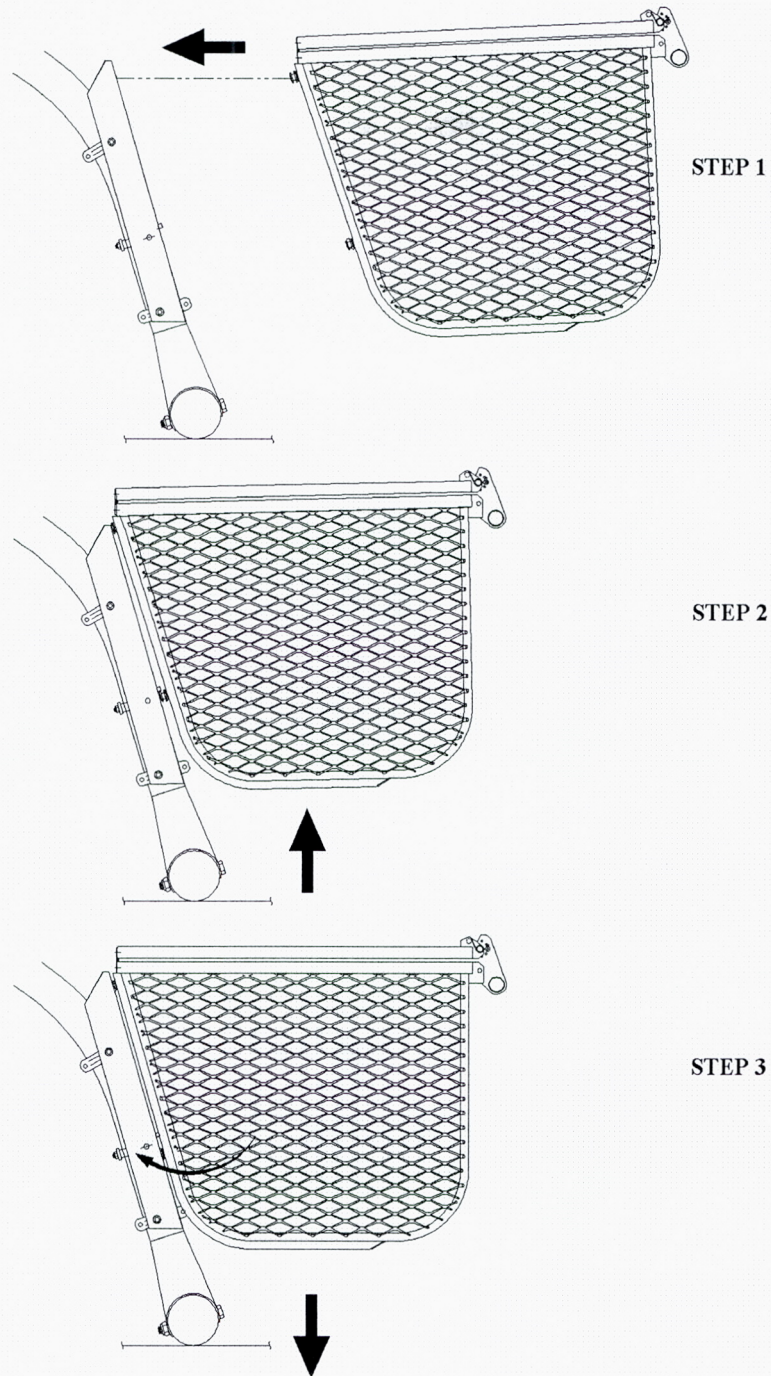


Figure 5 – Basket Attachment Steps

25-4 BASKET REMOVAL

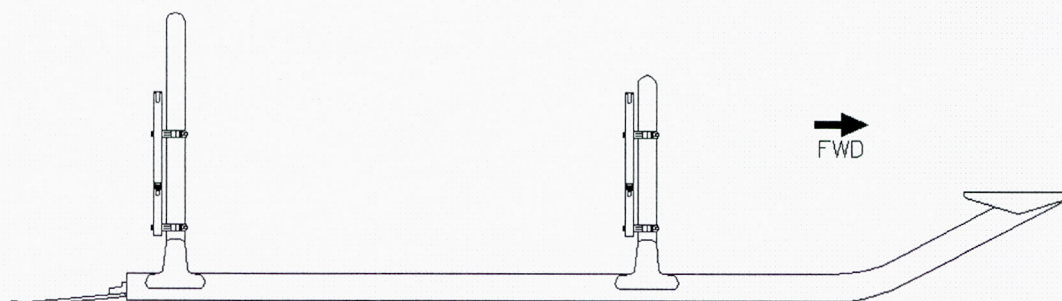
Refer to Figure 4 and Figure 5.

1. Pull knob at bottom end of forward beam and lift basket until lower attachment fitting is free of keyway. Keep upper basket attachment in keyway on beam.
2. Pull knob at bottom end of aft beam and lift basket until lower attachment fitting is free of keyway. Keep upper basket attachment in keyway on beam.
3. Lift basket until upper attachments are out of keyways on both beams and remove basket from helicopter.

25-5 WEIGHT AND BALANCE

This section contains weight and balance information for cargo basket models 764, 776 and 784. Each cargo basket model has multiple configurations. Refer to the weight and balance information applicable to basket model and configuration installed.

LOW BEAM INSTALLATION. The following weight and balance is for the installation of the Low Beam in accordance with drawing 78601.



Standard

P/N	Description	Weight lb	Longitudinal		Lateral	
			arm in	moment in-lb	arm in	moment in-lb
78620-01	Clamps	0.8	133.6	106.9	38.0	30.4
78630-01	Low Beams (Pair)	6.2	135.7	841.0	37.6	233.1
78601-01-01	Low Provisions Installation- RH	7.0	135.4	947.9	37.6	263.5

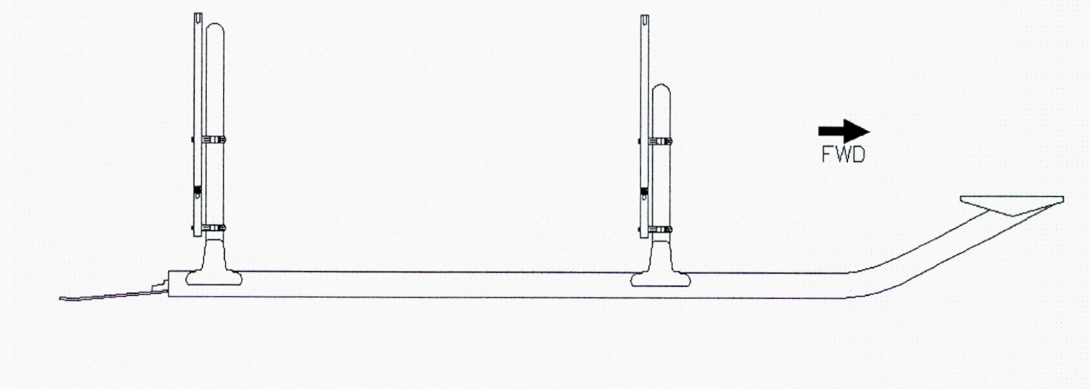
P/N	Description	Weight lb	Longitudinal		Lateral	
			arm in	moment in-lb	arm in	moment in-lb
78620-01	Clamps	0.8	133.6	106.9	-38.0	-30.4
78630-01	Low Beams (Pair)	6.2	135.7	841.0	-37.6	-233.1
78601-01-02	Low Provisions Installation- LH	7.0	135.4	947.9	-37.6	-263.5

Metric

P/N	Description	Weight kg	Longitudinal		Lateral	
			arm mm	moment mm-kg	arm mm	moment mm-kg
78620-01	Clamps	0.4	3393.4	1228.4	965.2	349.4
78630-01	Low Beams (Pair)	2.8	3445.5	9666.1	954.8	2678.6
78601-01-01	Low Provisions Installation - RH	3.2	3439.6	10894.5	956.0	3028.0

P/N	Description	Weight kg	Longitudinal		Lateral	
			arm mm	moment mm-kg	arm mm	moment mm-kg
78620-01	Clamps	0.4	3393.4	1228.4	-965.2	-349.4
78630-01	Low Beams (Pair)	2.8	3445.5	9666.1	-954.8	-2678.6
78601-01-02	Low Provisions Installation - LH	3.2	3439.6	10894.5	-956.0	-3028.0

HIGH BEAM INSTALLATION. The following weight and balance is for the installation of the Low Beam in accordance with drawing 78601.



Standard

P/N	Description	Weight	Longitudinal		Lateral	
		lb	arm in	moment in-lb	arm in	moment in-lb
78620-01	Clamps	0.8	133.6	106.9	38.0	30.4
78631-01	High Beams (Pair)	9.2	135.7	1248.0	36.7	337.9
78601-02-01	High Provisions Installation - RH	10.0	135.5	1354.9	36.8	368.3

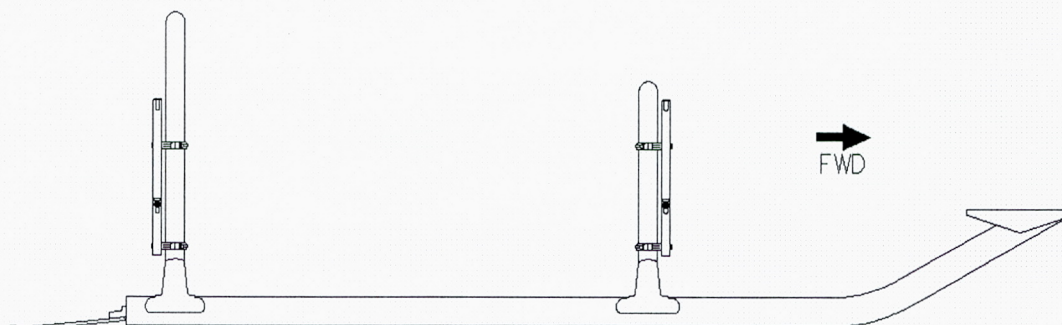
P/N	Description	Weight	Longitudinal		Lateral	
		lb	arm in	moment in-lb	arm in	moment in-lb
78620-01	Clamps	0.8	133.6	106.9	-38.0	-30.4
78631-01	High Beams (Pair)	9.2	135.7	1248.0	-36.7	-337.9
78601-02-02	High Provisions Installation - LH	10.0	135.5	1354.9	-36.8	-368.3

Metric

P/N	Description	Weight	Longitudinal		Lateral	
		kg	arm mm	moment mm-kg	arm mm	moment mm-kg
78620-01	Clamps	0.4	3393.4	1228.4	965.2	349.4
78631-01	High Beams (Pair)	4.2	3445.5	14343.3	932.9	3883.7
78601-02-01	High Provisions Installation - RH	4.5	3441.3	15571.7	935.5	4233.1

P/N	Description	Weight	Longitudinal		Lateral	
		kg	arm mm	moment mm-kg	arm mm	moment mm-kg
78620-01	Clamps	0.4	3393.4	1228.4	-965.2	-349.4
78631-01	High Beams (Pair)	4.2	3445.5	14343.3	-932.9	-3883.7
78601-02-02	High Provisions Installation - LH	4.5	3441.3	15571.7	-935.5	-4233.1

ALTERNATE LOW BEAM INSTALLATION. The following weight and balance is for the installation of the Low Beam in accordance with drawing 78601.



Standard

P/N	Description	Weight	Longitudinal		Lateral	
		lb	arm in	moment in-lb	arm in	moment in-lb
78620-01	Clamps	0.8	133.6	106.9	38.0	30.4
78630-01	Low Beams (Pair)	6.2	133.6	828.0	37.6	233.1
78601-01-01	Low Provisions Installation – RH (Alt)	7.0	133.6	934.9	37.6	263.5

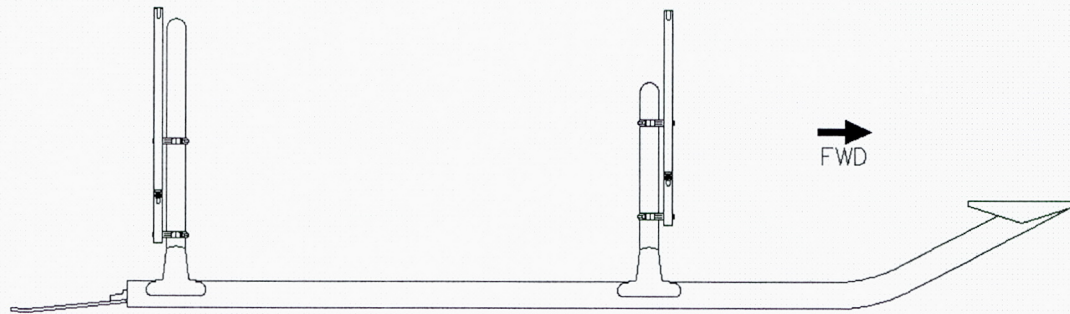
P/N	Description	Weight	Longitudinal		Lateral	
		lb	arm in	moment in-lb	arm in	moment in-lb
78620-01	Clamps	0.8	133.6	106.9	-38.0	-30.4
78630-01	Low Beams (Pair)	6.2	133.6	828.0	-37.6	-233.1
78601-01-02	Low Provisions Installation - LH (Alt)	7.0	133.6	934.9	-37.6	-263.5

Metric

P/N	Description	Weight	Longitudinal		Lateral	
		kg	arm mm	moment mm-kg	arm mm	moment mm-kg
78620-01	Clamps	0.4	3393.4	1228.4	965.2	349.4
78630-01	Low Beams (Pair)	2.8	3392.2	9516.5	954.8	2678.6
78601-01-01	Low Provisions Installation - RH (Alt)	3.2	3392.3	10744.9	956.0	3028.0

P/N	Description	Weight	Longitudinal		Lateral	
		kg	arm mm	moment mm-kg	arm mm	moment mm-kg
78620-01	Clamps	0.4	3393.4	1228.4	-965.2	-349.4
78630-01	Low Beams (Pair)	2.8	3392.2	9516.5	-954.8	-2678.6
78601-01-02	Low Provisions Installation – LH (Alt)	3.2	3392.3	10744.9	-956.0	-3028.0

ALTERNATE HIGH BEAM INSTALLATION. The following weight and balance is for the installation of the Low Beam in accordance with drawing 78601.



Standard

P/N	Description	Weight	Longitudinal		Lateral	
		lb	arm in	moment in-lb	arm in	moment in-lb
78620-01	Clamps	0.8	133.6	106.9	38.0	30.4
78631-01	High Beams (Pair)	9.2	133.6	1228.7	36.7	337.9
78601-02-01	High Provisions Installation – RH (Alt)	10.0	133.6	1335.5	36.8	368.3

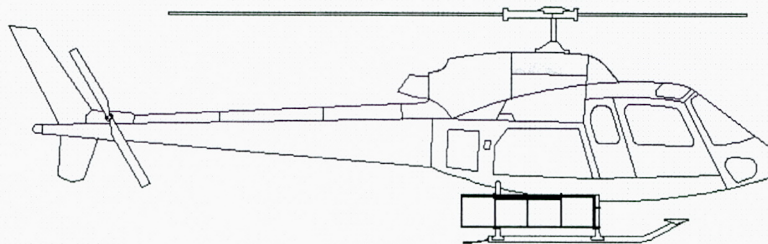
P/N	Description	Weight	Longitudinal		Lateral	
		lb	arm in	moment in-lb	arm in	moment in-lb
78620-01	Clamps	0.8	133.6	106.9	-38.0	-30.4
78631-01	High Beams (Pair)	9.2	133.6	1228.7	-36.7	-337.9
78601-02-02	High Provisions Installation– LH (Alt)	10.0	133.6	1335.5	-36.8	-368.3

Metric

P/N	Description	Weight	Longitudinal		Lateral	
		kg	arm mm	moment mm-kg	arm mm	moment mm-kg
78620-01	Clamps	0.4	3393.4	1228.4	965.2	349.4
78631-01	High Beams (Pair)	4.2	3392.2	14121.3	932.9	3883.7
78601-02-01	High Provisions Installation – RH (Alt)	4.5	3392.3	15349.6	935.5	4233.1

P/N	Description	Weight	Longitudinal		Lateral	
		kg	arm mm	moment mm-kg	arm mm	moment mm-kg
78620-01	Clamps	0.4	3393.4	1228.4	-965.2	-349.4
78631-01	High Beams (Pair)	4.2	3392.2	14121.3	-932.9	-3883.7
78601-02-02	High Provisions Installation – LH (Alt)	4.5	3392.3	15349.6	-935.5	-4233.1

MODEL 76401. The following weight and balance is for the cargo basket installed in accordance with drawing 76401.



Quick Release Cargo Basket: Configuration 76401-01 (Low Mounted)

Standard

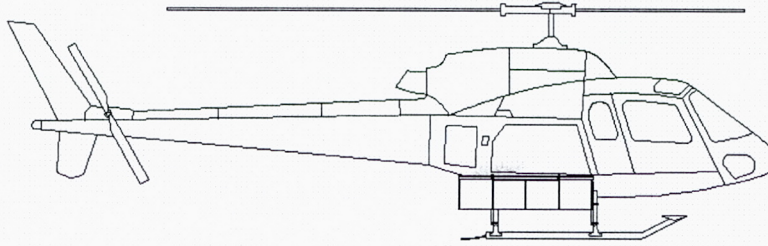
P/N	Description	Weight	Longitudinal		Lateral	
		lb	arm in	moment in-lb	arm in	moment in-lb
76410-01	Basket	45.0	144.9	6520.5	48.6	2187.5
78601-01	Low Provisions Installation	7.0	135.4	947.9	37.6	263.5
76401-01-01	Basket Installation (Low - RH)	52.0	143.6	7468.4	47.1	2450.9
	Maximum Cargo (RH)	200.0	144.9	28980.0	48.6	9722.0

P/N	Description	Weight	Longitudinal		Lateral	
		lb	arm in	moment in-lb	arm in	moment in-lb
76410-01	Basket	45.0	144.9	6520.5	-48.6	-2187.5
78601-01	Low Provisions Installation	7.0	135.4	947.9	-37.6	-263.5
76401-01-02	Basket Installation (Low - LH)	52.0	143.6	7468.4	-47.1	-2450.9
	Maximum Cargo (LH)	200.0	144.9	28980.0	-48.6	-9722.0

Metric

P/N	Description	Weight	Longitudinal		Lateral	
		kg	arm mm	moment mm-kg	arm mm	moment mm-kg
76410-01	Basket	20.4	3680.5	74941.5	1234.7	25140.8
78601-01	Low Provisions Installation	3.2	3439.6	10894.5	956.0	3028.0
76401-01-01	Basket Installation (Low- RH)	23.5	3648.0	85836.0	1197.2	28168.8
	Maximum Cargo (RH)	90.5	3680.5	333073.3	1234.7	111737.0

P/N	Description	Weight	Longitudinal		Lateral	
		kg	arm mm	moment mm-kg	arm mm	moment mm-kg
76410-01	Basket	20.4	3680.5	74941.5	-1234.7	-25140.8
78601-01	Low Provisions Installation	3.2	3439.6	10894.5	-956.0	-3028.0
76401-01-02	Basket Installation (Low- LH)	23.5	3648.0	85836.0	-1197.2	-28168.8
	Maximum Cargo (LH)	90.5	3680.5	333073.3	-1234.7	-111737.0



Quick Release Cargo Basket: Configuration 76401-02 (High Mounted)

Standard

P/N	Description	Weight	Longitudinal		Lateral	
		lb	arm in	moment in-lb	arm in	moment in-lb
76410-01	Basket	45.0	144.9	6520.5	46.3	2084.9
78601-02	High Provisions Installation	10.0	135.5	1354.9	36.8	368.3
76401-02-01	Basket Installation (High - RH)	55.0	143.2	7875.4	44.6	2453.2
	Maximum Cargo (RH)	200.0	144.9	28980.0	46.3	9266.0

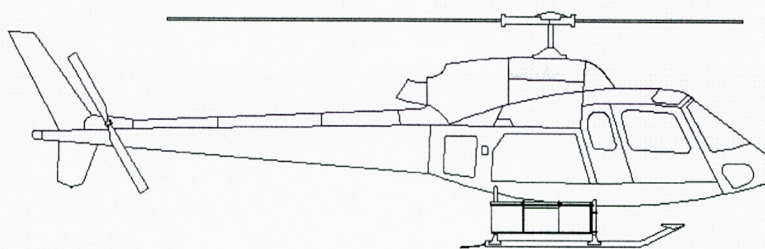
P/N	Description	Weight	Longitudinal		Lateral	
		lb	arm in	moment in-lb	arm in	moment in-lb
76410-01	Basket	45.0	144.9	6520.5	-46.3	-2084.9
78601-02	High Provisions Installation	10.0	135.5	1354.9	-36.8	-368.3
76401-02-02	Basket Installation (High - LH)	55.0	143.2	7875.4	-44.6	-2453.2
	Maximum Cargo (LH)	200.0	144.9	28980.0	-46.3	-9266.0

Metric

P/N	Description	Weight	Longitudinal		Lateral	
		kg	arm mm	moment mm-kg	arm mm	moment mm-kg
76410-01	Basket	20.4	3680.5	74941.5	1176.8	23961.6
78601-02	High Provisions Installation	4.5	3441.3	15571.7	935.5	4233.1
76401-02-01	Basket Installation (High- RH)	24.9	3637.0	90513.2	1132.9	28194.8
	Maximum Cargo (RH)	90.5	3680.5	333073.3	1176.8	106496.1

P/N	Description	Weight	Longitudinal		Lateral	
		kg	arm mm	moment mm-kg	arm mm	moment mm-kg
76410-01	Basket	20.4	3680.5	74941.5	-1176.8	-23961.6
78601-02	High Provisions Installation	4.5	3441.3	15571.7	-935.5	-4233.1
76401-02-02	Basket Installation (High- LH)	24.9	3637.0	90513.2	-1132.9	-28194.8
	Maximum Cargo (LH)	90.5	3680.5	333073.3	-1176.8	-106496.1

MODEL 77601. The following weight and balance is for the cargo basket installed in accordance with drawing 77601.



Quick Release Cargo Basket: Configuration 77601-01 (Low mounted)

Standard

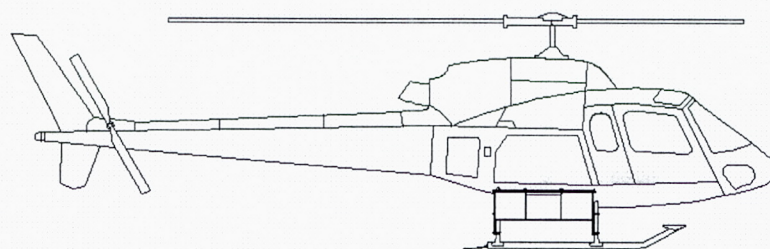
P/N	Description	Weight	Longitudinal		Lateral	
		lb	arm in	moment in-lb	arm in	moment in-lb
77610-01	Basket	35.0	135.7	4749.5	49.2	1723.4
78601-01	Low Provisions Installation	7.0	135.4	947.9	37.6	263.5
77601-01-01	Basket Installation (Low - RH)	42.0	135.7	5697.4	47.3	1986.9
	Maximum Cargo (RH)	300.0	135.7	40710.0	49.2	14760.0

P/N	Description	Weight	Longitudinal		Lateral	
		lb	arm in	moment in-lb	arm in	moment in-lb
77610-01	Basket	35.0	135.7	4749.5	-49.2	-1723.4
78601-01	Low Provisions Installation	7.0	135.4	947.9	-37.6	-263.5
77601-01-02	Basket Installation (Low - LH)	42.0	135.7	5697.4	-47.3	-1986.9
	Maximum Cargo (LH)	300.0	135.7	40710.0	-49.2	-14760.0

Metric

P/N	Description	Weight	Longitudinal		Lateral	
		kg	arm mm	moment mm-kg	arm mm	moment mm-kg
77610-01	Basket	15.8	3446.8	54587.0	1250.7	19807.4
78601-01	Low Provisions Installation	3.2	3439.6	10894.5	956.0	3028.0
77601-01-01	Basket Installation (Low- RH)	19.0	3445.6	65481.5	1201.6	22835.4
	Maximum Cargo (RH)	135.7	3446.8	467730.8	1250.7	169720.0

P/N	Description	Weight	Longitudinal		Lateral	
		kg	arm mm	moment mm-kg	arm mm	moment mm-kg
77610-01	Basket	15.8	3446.8	54587.0	-1250.7	-19807.4
78601-01	Low Provisions Installation	3.2	3439.6	10894.5	-956.0	-3028.0
77601-01-02	Basket Installation (Low- LH)	19.0	3445.6	65481.5	-1201.6	-22835.4
	Maximum Cargo (LH)	135.7	3446.8	467730.8	-1250.7	-169720.0



Quick Release Cargo Basket: Configuration 77601-02 (High mounted)

Standard

P/N	Description	Weight	Longitudinal		Lateral	
		lb	arm in	moment in-lb	arm in	moment in-lb
77610-01	Basket	35.0	135.7	4749.5	47.0	1643.6
78601-02	High Provisions Installation	10.0	135.5	1354.9	36.8	368.3
77601-02-01	Basket Installation (High - RH)	45.0	135.7	6104.4	44.7	2011.9
	Maximum Cargo (RH)	300.0	135.7	40710.0	47.0	14100.0

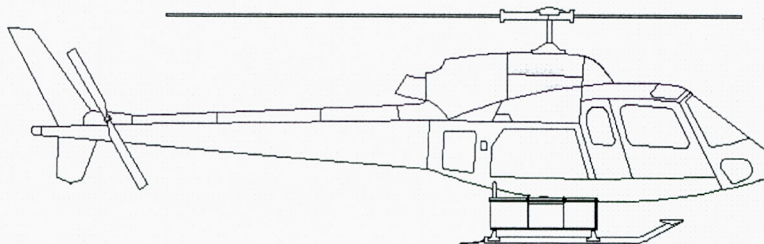
P/N	Description	Weight	Longitudinal		Lateral	
		lb	arm in	moment in-lb	arm in	moment in-lb
77610-01	Basket	35.0	135.7	4749.5	-47.0	-1643.6
78601-02	High Provisions Installation	10.0	135.5	1354.9	-36.8	-368.3
77601-02	Basket Installation (High - LH)	45.0	135.7	6104.4	-44.7	-2011.9
	Maximum Cargo (LH)	300.0	135.7	40710.0	-47.0	-14100.0

Metric

P/N	Description	Weight	Longitudinal		Lateral	
		kg	arm mm	moment mm-kg	arm mm	moment mm-kg
77610-01	Basket	15.8	3446.8	54587.0	1192.8	18890.2
78601-02	High Provisions Installation	4.5	3441.3	15571.7	935.5	4233.1
77601-02	Basket Installation (High- RH)	20.4	3445.6	70158.7	1135.6	23123.4
	Maximum Cargo (RH)	135.7	3446.8	467730.8	1192.8	161863.0

P/N	Description	Weight	Longitudinal		Lateral	
		kg	arm mm	moment mm-kg	arm mm	moment mm-kg
77610-01	Basket	15.8	3446.8	54587.0	-1192.8	-18890.2
78601-02	High Provisions Installation	4.5	3441.3	15571.7	-935.5	-4233.1
77601-02	Basket Installation (High- LH)	20.4	3445.6	70158.7	-1135.6	-23123.4
	Maximum Cargo (LH)	135.7	3446.8	467730.8	-1192.8	-161863.0

MODEL 77602. The following weight and balance is for the cargo basket installed in accordance with drawing 77602.



Quick Release Cargo Basket: Configuration 77602-01 (Low mounted)

Standard

P/N	Description	Weight	Longitudinal		Lateral	
		lb	arm in	moment in-lb	arm in	moment in-lb
77610-02	Basket	36.2	133.6	4836.3	49.2	1781.0
78601-01	Low Provisions Installation	7.0	133.6	934.9	37.6	263.5
77602-01-01	Basket Installation (Low - RH)	43.2	133.6	5771.2	47.3	2044.5
	Maximum Cargo (RH)	300.0	133.6	40080.0	49.2	14760.0

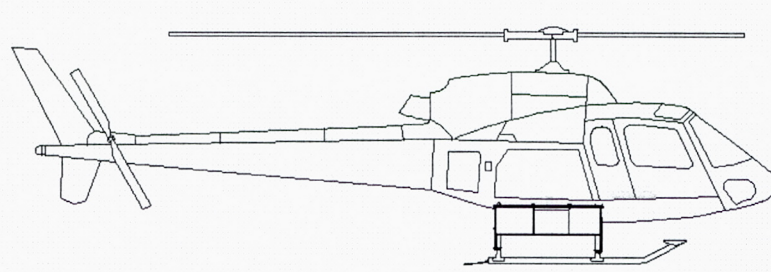
P/N	Description	Weight	Longitudinal		Lateral	
		lb	arm in	moment in-lb	arm in	moment in-lb
77610-02	Basket	36.2	133.6	4836.3	-49.2	-1781.0
78601-01	Low Provisions Installation	7.0	133.6	934.9	-37.6	-263.5
77602-01-02	Basket Installation (Low - LH)	43.2	133.6	5771.2	-47.3	-2044.5
	Maximum Cargo (LH)	300.0	133.6	40080.0	-49.2	-14760.0

Metric

P/N	Description	Weight	Longitudinal		Lateral	
		kg	arm mm	moment mm-kg	arm mm	moment mm-kg
77610-02	Basket	16.4	3393.4	55584.9	1249.7	20469.9
78601-01	Low Provisions Installation	3.2	3392.3	10744.9	956.0	3028.0
77602-01-01	Basket Installation (Low- RH)	19.5	3393.3	66329.7	1202.1	23497.9
	Maximum Cargo (RH)	135.7	3393.4	460484.4	1249.7	169584.3

Metric

P/N	Description	Weight	Longitudinal		Lateral	
		kg	arm mm	moment mm-kg	arm mm	moment mm-kg
77610-02	Basket	16.4	3393.4	55584.9	-1249.7	-20469.9
78601-01	Low Provisions Installation	3.2	3392.3	10744.9	-956.0	-3028.0
77602-01-02	Basket Installation (Low- LH)	19.5	3393.3	66329.7	-1202.1	-23497.9
	Maximum Cargo (LH)	135.7	3393.4	460484.4	1249.7	169584.3



Quick Release Cargo Basket: Configuration 77602-02 (High mounted)

Standard

P/N	Description	Weight	Longitudinal		Lateral	
		lb	arm in	moment in-lb	arm in	moment in-lb
77610-02	Basket	36.2	133.6	4836.3	47.0	1700.0
78601-02	High Provisions Installation	10.0	133.6	1335.5	36.8	368.3
77602-02-01	Basket Installation (High - RH)	46.2	133.6	6171.9	44.8	2068.3
	Maximum Cargo (RH)	300.0	133.6	40080.0	47.0	14100.0

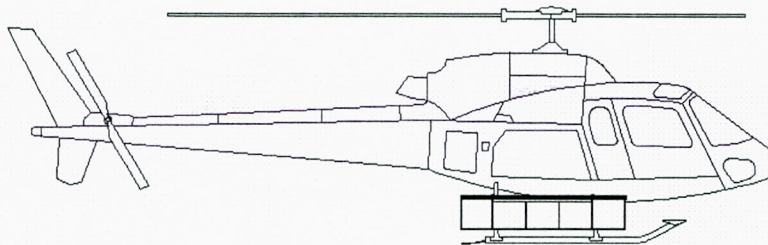
P/N	Description	Weight	Longitudinal		Lateral	
		lb	arm in	moment in-lb	arm in	moment in-lb
77610-02	Basket	36.2	133.6	4836.3	-47.0	-1700.0
78601-02	High Provisions Installation	10.0	133.6	1335.5	-36.8	-368.3
77602-02-02	Basket Installation (High - LH)	46.2	133.6	6171.9	-44.8	-2068.3
	Maximum Cargo (LH)	300.0	133.6	40080.0	-47.0	-14100.0

Metric

P/N	Description	Weight	Longitudinal		Lateral	
		kg	arm mm	moment mm-kg	arm mm	moment mm-kg
77610-02	Basket	16.4	3393.4	55584.9	1192.8	19537.9
78601-02	High Provisions Installation	4.5	3392.3	15349.6	935.5	4233.1
77602-02-01	Basket Installation (High- RH)	20.9	3393.2	70934.5	1137.1	23771.0
	Maximum Cargo (RH)	135.7	3393.4	460484.4	1192.8	161863.0

P/N	Description	Weight	Longitudinal		Lateral	
		kg	arm mm	moment mm-kg	arm mm	moment mm-kg
77610-02	Basket	16.4	3393.4	55584.9	-1192.8	-19537.9
78601-02	High Provisions Installation	4.5	3392.3	15349.6	-935.5	-4233.1
77602-02-02	Basket Installation (High- LH)	20.9	3393.2	70934.5	-1137.1	-23771.0
	Maximum Cargo (LH)	135.7	3393.4	460484.4	-1192.8	-161863.0

MODEL 78401. The following weight and balance is for the cargo basket installed in accordance with drawing 78401.



Quick Release Cargo Basket: Configuration 78401-01 (Low Mounted)

Standard

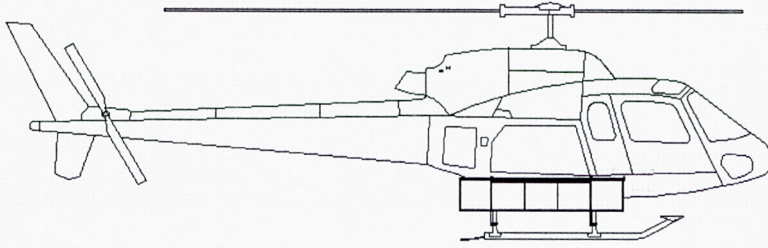
P/N	Description	Weight	Longitudinal		Lateral	
		lb	arm in	moment in-lb	arm in	moment in-lb
78410-01	Basket	55.0	135.7	7463.5	48.4	2659.8
78601-01	Low Provisions Installation	7.0	135.4	947.9	37.6	263.5
78401-01-01	Basket Installation (Low - RH)	62.0	135.7	8411.4	47.1	2923.3
	Maximum Cargo (RH)	200.0	135.7	27140.0	48.4	9672.0

P/N	Description	Weight	Longitudinal		Lateral	
		lb	arm in	moment in-lb	arm in	moment in-lb
78410-01	Basket	55.0	135.7	7463.5	-48.4	-2659.8
78601-01	Low Provisions Installation	7.0	135.4	947.9	-37.6	-263.5
78401-01-02	Basket Installation (Low - LH)	62.0	135.7	8411.4	-47.1	-2923.3
	Maximum Cargo (LH)	200.0	135.7	27140.0	-48.4	-9672.0

Metric

P/N	Description	Weight	Longitudinal		Lateral	
		kg	arm mm	moment mm-kg	arm mm	moment mm-kg
78410-01	Basket	24.9	3446.8	85779.6	1228.3	30569.6
78601-01	Low Provisions Installation	3.2	3439.6	10894.5	956.0	3028.0
78401-01-01	Basket Installation (Low- RH)	28.1	3446.0	96674.1	1197.6	33597.6
	Maximum Cargo (RH)	90.5	3446.8	311925.8	1228.3	111162.4

P/N	Description	Weight	Longitudinal		Lateral	
		kg	arm mm	moment mm-kg	arm mm	moment mm-kg
78410-01	Basket	24.9	3446.8	85779.6	-1228.3	-30569.6
78601-01	Low Provisions Installation	3.2	3439.6	10894.5	-956.0	-3028.0
78401-01-02	Basket Installation (Low- LH)	28.1	3446.0	96674.1	-1197.6	-33597.6
	Maximum Cargo (LH)	90.5	3446.8	311925.8	-1228.3	-111162.4



Quick Release Cargo Basket: Configuration 78401-02 (High Mounted)

Standard

P/N	Description	Weight	Longitudinal		Lateral	
		lb	arm in	moment in-lb	arm in	moment in-lb
78410-01	Basket	55.0	135.7	7463.5	46.1	2534.4
78601-02	High Provisions Installation	10.0	135.5	1354.9	36.8	368.3
78401-02	Basket Installation (High - RH)	65.0	135.7	8818.4	44.7	2902.7
	Maximum Cargo (RH)	200.0	135.7	27140.0	46.1	9216.0

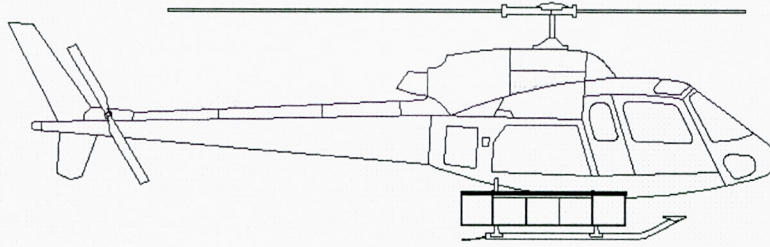
P/N	Description	Weight	Longitudinal		Lateral	
		lb	arm in	moment in-lb	arm in	moment in-lb
78410-01	Basket	55.0	135.7	7463.5	-46.1	-2534.4
78601-02	High Provisions Installation	10.0	135.5	1354.9	-36.8	-368.3
78401-02	Basket Installation (High - LH)	65.0	135.7	8818.4	-44.7	-2902.7
	Maximum Cargo (LH)	200.0	135.7	27140.0	-46.1	-9216.0

Metric

P/N	Description	Weight	Longitudinal		Lateral	
		kg	arm mm	moment mm-kg	arm mm	moment mm-kg
78410-01	Basket	24.9	3446.8	85779.6	1170.4	29128.4
78601-02	High Provisions Installation	4.5	3441.3	15571.7	935.5	4233.1
78401-02-01	Basket Installation (High- RH)	29.4	3445.9	101351.3	1134.3	33361.5
	Maximum Cargo (RH)	90.5	3446.8	311925.8	1170.4	105921.4

P/N	Description	Weight	Longitudinal		Lateral	
		kg	arm mm	moment mm-kg	arm mm	moment mm-kg
78410-01	Basket	24.9	3446.8	85779.6	-1170.4	-29128.4
78601-02	High Provisions Installation	4.5	3441.3	15571.7	-935.5	-4233.1
78401-02	Basket Installation (High- LH)	29.4	3445.9	101351.3	-1134.3	-33361.5
	Maximum Cargo (LH)	90.5	3446.8	311925.8	-1170.4	-105921.4

MODEL 78402. The following weight and balance is for the cargo basket installed in accordance with drawing 78402.



Quick Release Cargo Basket: Configuration 78402-01 (Low Mounted)

Standard

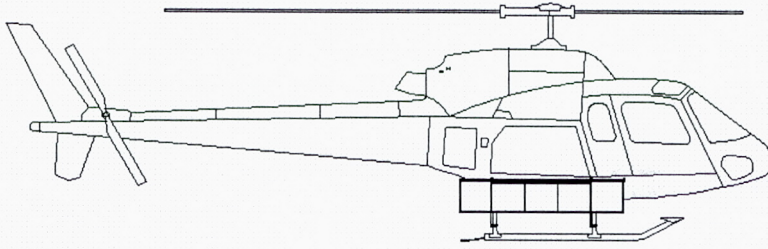
P/N	Description	Weight	Longitudinal		Lateral	
		lb	arm in	moment in-lb	arm in	moment in-lb
78410-02	Basket	60.0	135.7	8142.0	48.4	2901.6
78601-01	Low Provisions Installation	7.0	135.4	947.9	37.6	263.5
78402-01-01	Basket Installation (Low- RH)	67.0	85.7	8142.0	30.5	2901.6
	Maximum Cargo (RH)	200.0	135.7	27140.0	48.4	9672.0

P/N	Description	Weight	Longitudinal		Lateral	
		lb	arm in	moment in-lb	arm in	moment in-lb
78410-02	Basket	60.0	135.7	8142.0	-48.4	-2901.6
78601-01	Low Provisions Installation	7.0	135.4	947.9	-37.6	-263.5
78402-01-02	Basket Installation (Low- LH)	67.0	85.7	8142.0	-30.5	-2901.6
	Maximum Cargo (LH)	200.0	135.7	27140.0	-48.4	-9672.0

Metric

P/N	Description	Weight	Longitudinal		Lateral	
		kg	arm mm	moment mm-kg	arm mm	moment mm-kg
78410-02	Basket	27.1	3446.8	93577.7	1228.3	33348.7
78601-01	Low Provisions Installation	3.2	3439.6	10894.5	956.0	3028.0
78402-01-01	Basket Installation (Low- RH)	30.4	3446.8	104782.7	1228.3	37340.3
	Maximum Cargo (RH)	90.5	3446.8	311925.8	1228.3	111162.4

P/N	Description	Weight	Longitudinal		Lateral	
		kg	arm mm	moment mm-kg	arm mm	moment mm-kg
78410-02	Basket	27.1	3446.8	93577.7	-1228.3	-33348.7
78601-01	Low Provisions Installation	3.2	3439.6	10894.5	-956.0	-3028.0
78402-01-02	Basket Installation (Low- LH)	30.4	3446.8	104782.7	-1228.3	-37340.3
	Maximum Cargo (LH)	90.5	3446.8	311925.8	-1228.3	-111162.4



Quick Release Cargo Basket: Configuration 78402-02 (High Mounted)

Standard

P/N	Description	Weight	Longitudinal		Lateral	
		lb	arm in	moment in-lb	arm in	moment in-lb
78410-02	Basket	60.0	135.7	8142.0	46.1	2764.8
78601-02	High Provisions Installation	10.0	135.5	1354.9	36.8	368.3
78402-02-01	Basket Installation (High- RH)	70.0	588.0	41161.0	210.2	14714.0
	Maximum Cargo (RH)	200.0	135.7	27140.0	46.1	9216.0

P/N	Description	Weight	Longitudinal		Lateral	
		lb	arm in	moment in-lb	arm in	moment in-lb
78410-02	Basket	60.0	135.7	8142.0	-46.1	-2764.8
78601-02	High Provisions Installation	10.0	135.5	1354.9	-36.8	-368.3
78402-02-02	Basket Installation (High- LH)	70.0	588.0	41161.0	-210.2	-14714.0
	Maximum Cargo (LH)	200.0	135.7	27140.0	-46.1	-9216.0

Metric

P/N	Description	Weight	Longitudinal		Lateral	
		kg	arm mm	moment mm-kg	arm mm	moment mm-kg
78410-02	Basket	27.1	3446.8	93577.7	1170.4	31776.4
78601-02	High Provisions Installation	4.5	3441.3	15571.7	935.5	4233.1
78402-02-01	Basket Installation (High- RH)	31.8	3446.8	109608.2	1232.2	39184.0
	Maximum Cargo (RH)	90.5	3446.8	311925.8	1170.4	105921.4

P/N	Description	Weight	Longitudinal		Lateral	
		kg	arm mm	moment mm-kg	arm mm	moment mm-kg
78410-02	Basket	27.1	3446.8	93577.7	-1170.4	-31776.4
78601-02	High Provisions Installation	4.5	3441.3	15571.7	-935.5	-4233.1
78402-02-02	Basket Installation (High- LH)	31.8	3446.8	109608.2	-1232.2	-39184.0
	Maximum Cargo (LH)	90.5	3446.8	311925.8	-1170.4	-105921.4

25-6 STRUCTURAL FASTENER DATA

Refer to Eurocopter Standard Practices Manual for torque values not listed in this ICA.



AS358 Short.
(outside to outside clump)

SENDER RETAIN THIS COPY / COPIE DE L'EXPÉDITEUR

SENDER ACCOUNT NO. N° DE COMPTE DE L'EXPÉDITEUR		IMPORTANT - TÉLÉPHONE	
4367155		(403) 250 8027	
SENDER (FROM) / EXPÉDITEUR (DE)		MO DY/JR YR/AN	
AERO DESIGN		09/19/08	
STREET ADDRESS / ADRESSE (N° ET RUE)		APT., SUITE / APP., BUREAU	
2013 39 AVE NE			
CITY / VILLE	PROV./STATE/ÉTAT	POSTAL / ZIP	
CALGARY	ALTA	T2E 6R7	
RECEIVER (TO) / DESTINATAIRE (A)			
TRANSPORT CANADA CERTIFICATION			
STREET ADDRESS / ADRESSE (N° ET RUE)		APT., SUITE / APP., BUREAU	
9700 JASPER AVE		11 TH FLOOR	
CITY / VILLE	PROV./STATE/ÉTAT	POSTAL / ZIP	
EDMONTON	AB	T5J 4E6	
ATTN: (NAME / DEPT./) À L'ATTENTION DE (NOM / SERVICE)		IMPORTANT - TÉLÉPHONE	
JACK STAAL		(780) 4955227	
DESCRIPTION (INCLUDING DANGEROUS GOODS / INCLUANT MARCHANDISES DANGEREUSES)			
DOCUMENTS			
SENDER REFERENCE (IF ANY) / REF. DE L'EXPÉD.		PICK UP / CUEILLETTE - N° DE CONF.	
		839-71621	
		0008	

SENDER SIGNATURE / SIGNATURE DE L'EXPÉDITEUR

X SEE CONDITIONS OF CARRIAGE ON REVERSE / CONDITIONS DE TRANSPORT AU VERSO X

SHIP MODE / MODE DE TRANSPORT			
AIR AÉRIEN		GROUND ROUTIER	
<input type="checkbox"/>		<input checked="" type="checkbox"/>	
PKG / EMBAL		SERVICE	
1 CHOOSE CHOISIR	PURO- LETTER	1 PIECE ONLY PIECE SEULEMENT	9 AM 9 h
	PURO- PAK		10:30 AM 10 h 30
	OTHER AUTRE		SAT. SAM.
PAYMENT / PAIEMENT			
CASH COMPTANT		CREDIT CARD CARTE DE CREDIT	
<input type="checkbox"/>		<input type="checkbox"/>	
RECEIVER OR THIRD PARTY ACCOUNT NO. / N° DE COMPTE DU DESTINATAIRE OU TIERS			
RECEIVER DESTINA- TAIRE		3RD PARTY TIERS	
<input type="checkbox"/>		<input type="checkbox"/>	
SHIPMENT / DÉTAILS / EXPÉDITION			
#/Nbre PCS (4 MAXIMUM)		WEIGHT / POIDS SUBJ. TO CORR. / SUJET À CORR.	
1		KG LB	
DECLARED VALUE / VALEUR DÉCLARÉE (SURCHARGE APPLIES OVER \$100) (SUPPLÉMENT AU-DESSUS DE 100 \$)			
\$ 5,000 MAX. MAX 5 000 \$			
SEE CONDITIONS OF CARRIAGE ON REVERSE/ CONDITIONS DE TRANSPORT AU VERSO			

BILL OF LADING NO.
NOT NEGOTIABLE
N° DE CONNAISSANCE
NON NEGOCIABLE

2747 320 3050



1 888 SHIP-123

www.purolator.com

COURIER INITIALS
INITIALES DU COURRIERCOURIER ROUTE
ITINÉRAIRE DU COURRIER

MO DY/JR YR/AN



6

CE

9/19

NO./N°

TYPE ☐ VISA ☐ MC ☐ AMEX

EXP. DATE D'EXP.

CHARGES
FRAIS

TOTAL AMOUNT / MONTANT TOTAL

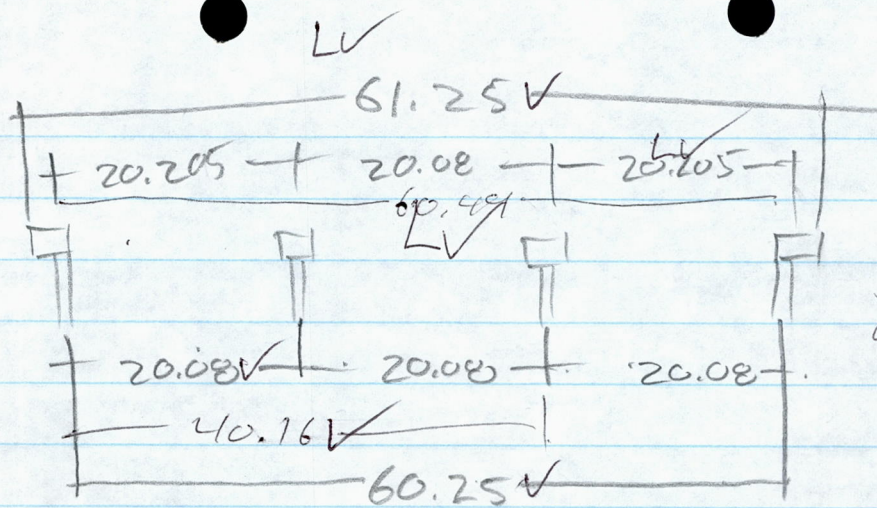
THIRD PARTY BILLING NAME & ADDRESS / FACTURATION À UN TIERS (NOM & ADRESSE)

LIMITATION OF LIABILITY - IMPORTANT - PLEASE READ
THE AMOUNT OF ANY LOSS OR DAMAGE FOR WHICH THE CARRIER MAY BE LIABLE SHALL NOT EXCEED \$2.00 PER POUND (OR \$4.41 PER KILOGRAM) COMPUTED ON THE TOTAL WEIGHT OF THE SHIPMENT UNLESS A HIGHER VALUE IS DECLARED ON THE FACE OF THE BILL OF LADING BY THE CONSIGNOR (SENDER). MAXIMUM DECLARED VALUE SHALL NOT EXCEED \$5,000. N.B. NOTE CAREFULLY CONDITIONS ON BACK HEREOF INCLUDING LIMITATIONS AND EXCLUSIONS OF CARRIER'S LIABILITY, WHICH ARE HEREBY ACCEPTED.

LIMITATION DE RESPONSABILITÉ - IMPORTANT - LISEZ S.V.P.
LE MONTANT DE TOUTE PERTE OU DOMMAGE DONT LE TRANSPORTEUR POURRAIT ÊTRE RESPONSABLE NE DOIT PAS EXCÉDER 2,00 \$ LA LIVRE (OU 4,41 \$ LE KILOGRAMME). CALCULÉ SUR LE POIDS TOTAL DE L'EXPÉDITION, À MOINS QU'UNE VALEUR SUPÉRIEURE N'AIT ÉTÉ DÉCLARÉE SUR LE RECTO DU CONNAISSANCE PAR L'EXPÉDITEUR. LA VALEUR DÉCLARÉE MAXIMALE NE DÉPASSERA PAS 5 000 \$. N.B. VEUILLEZ PRENDRE CONNAISSANCE DES CONDITIONS AU VERSO, Y COMPRIS LES LIMITATIONS ET EXCLUSIONS DE RESPONSABILITÉ DU TRANSPORTEUR, QUI SONT ACCEPTÉES PAR LES PRÉSENTES.

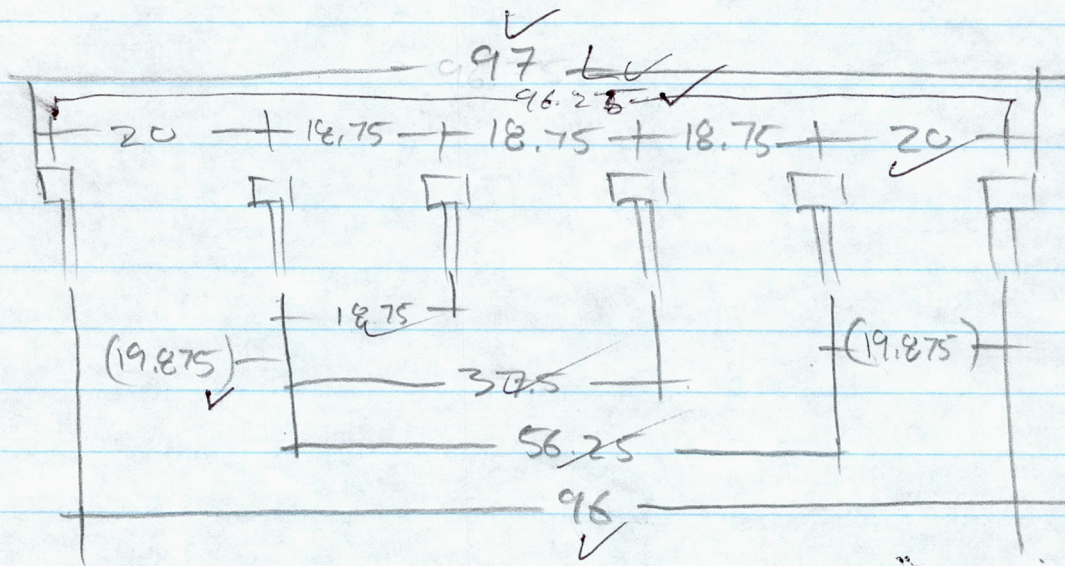
PLEASE REFER TO BILL OF LADING NUMBER FOR SHIPMENT STATUS / INQUIRY
POUR TOUT RENSEIGNEMENT, VEUILLEZ NOUS COMMUNIQUER LE NUMÉRO DE CONNAISSANCE.

SENDER RETAIN THIS COPY / COPIE DE L'EXPÉDITEUR

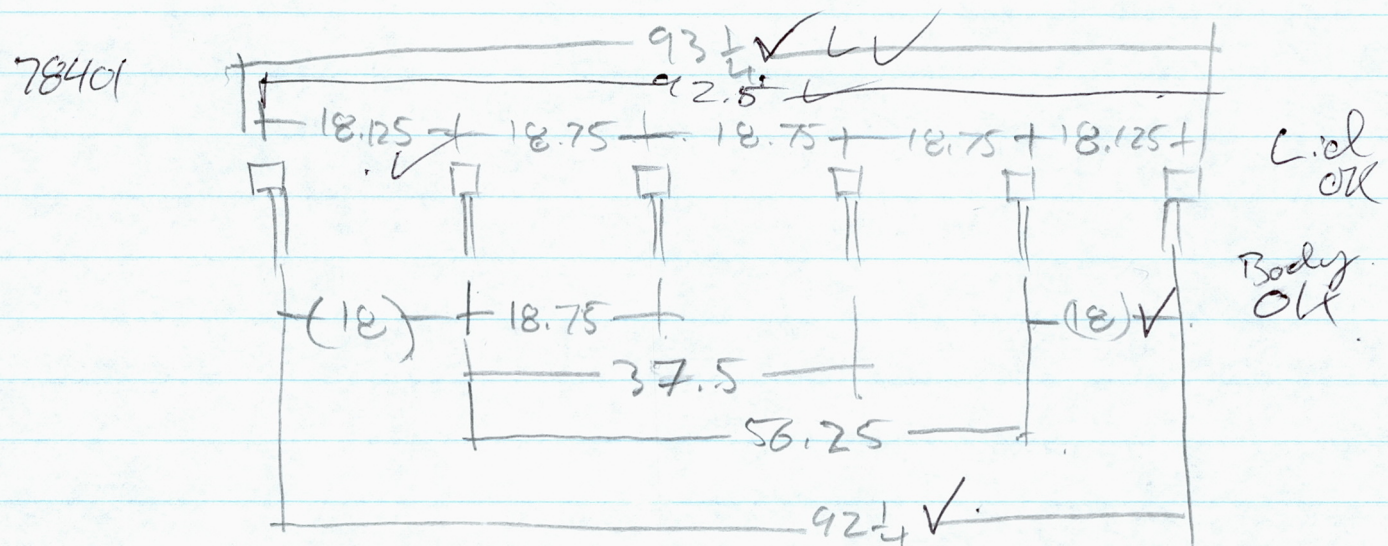
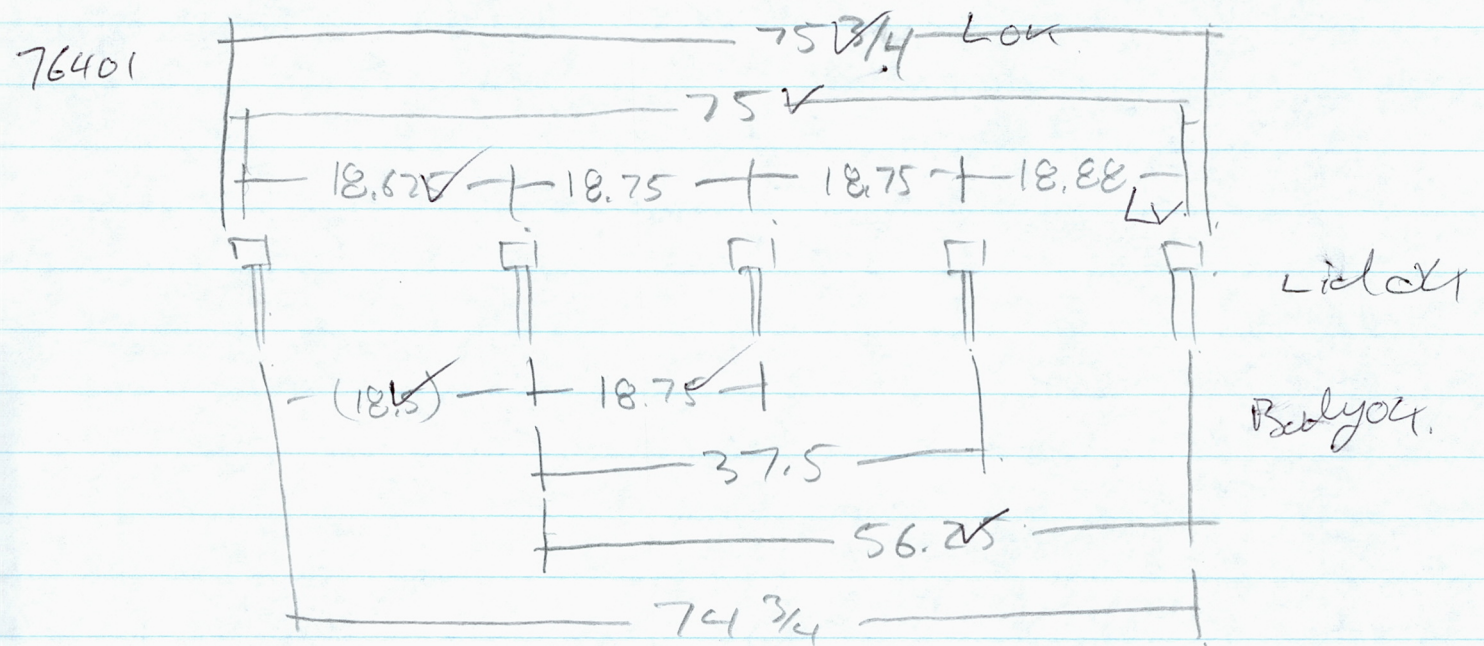
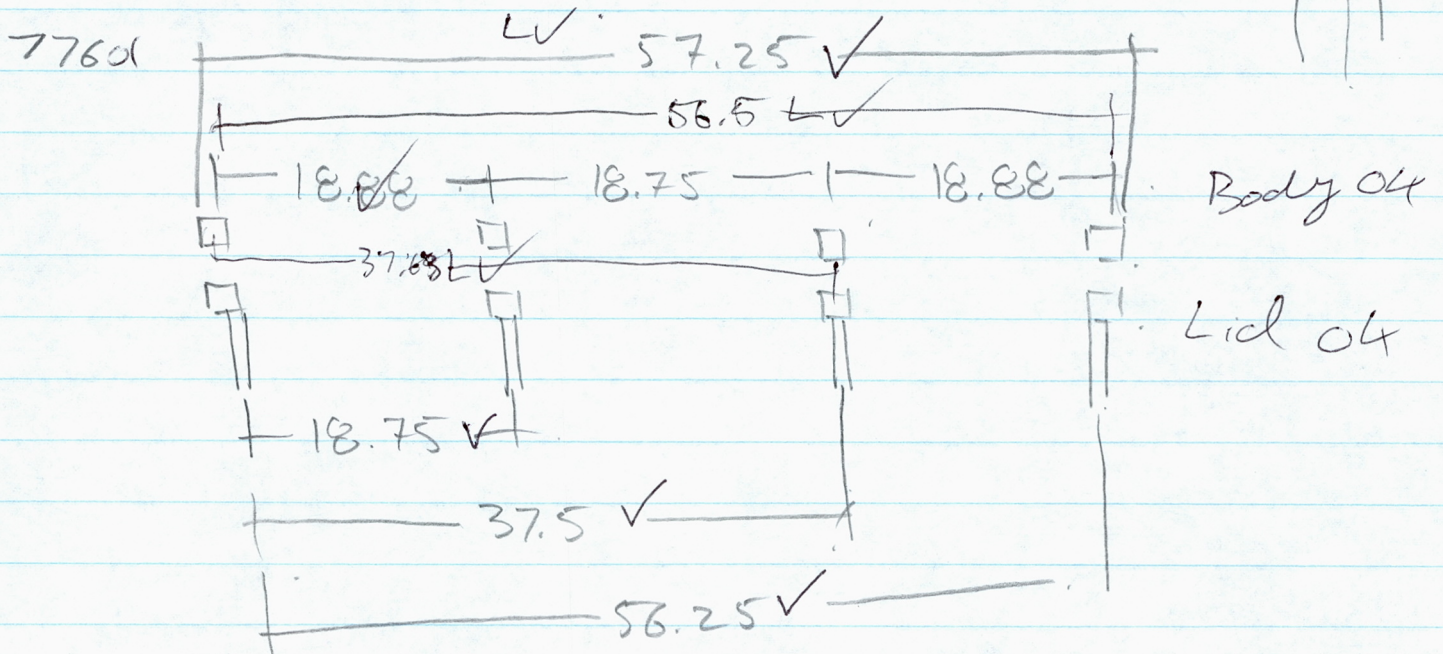


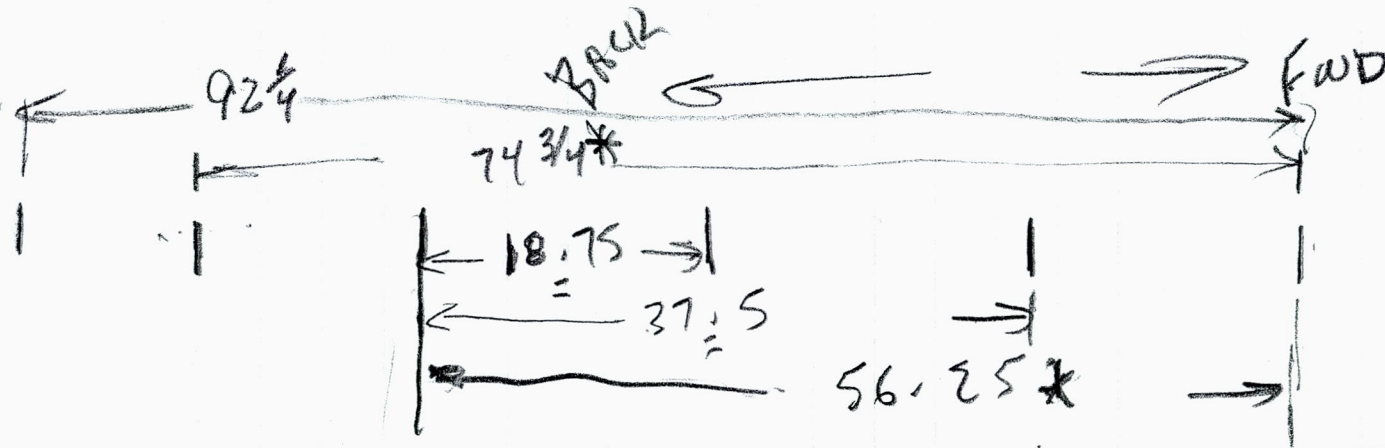
Body ok

Lil ok



Body ok





* SHORT
AS 350

407/206L LOW
QUICK
DET
* AS 350 MED

BELL 206L/407
HIGH SKI

* AS 350
LONG

212

1792



AFT

FWD

1B



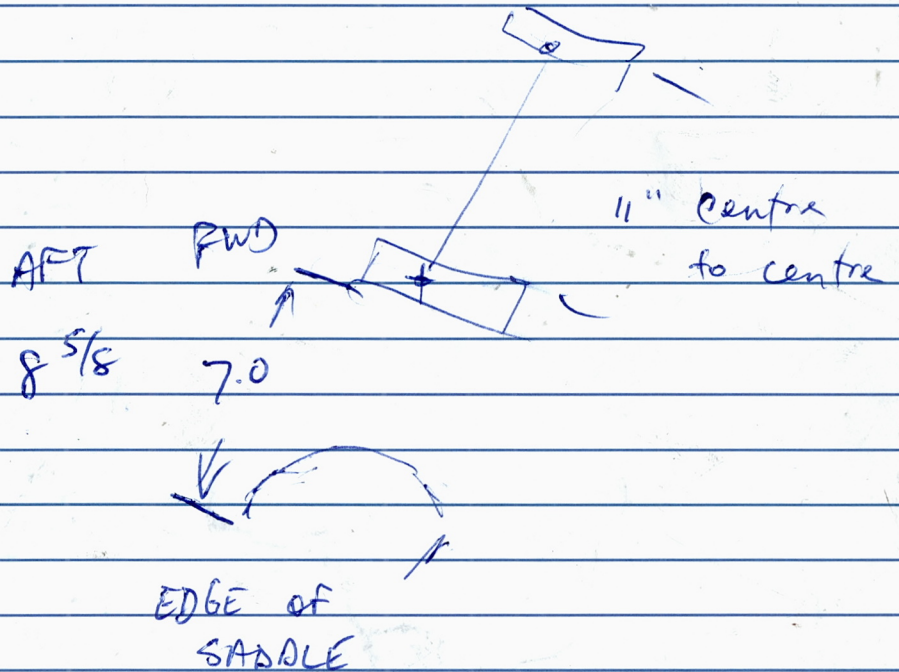
TOD

1B

1B

Bottom

All same clamps.



REV.	DESCRIPTION OF CHANGE	INITIALS	DATE
0	INITIAL ISSUE		

S/N 77602-01	77611-02	61.25	60.25	20.00	40.25
S/N 77601-01, 77601-02	77611-01	57.25	56.25	18.00	38.25
	CONFIGURATION NO.	DIM A	DIM B	DIM C	DIM D

TABLE 1 – BASKET BODY CONFIGURATIONS
DRAWING 77611

S/N 77602-01	77612-02	61.25	60.50	40.38	20.13
S/N 77601-01, 77601-02	77612-01	57.25	56.50	38.38	18.13
	CONFIGURATION NO.	DIM A	DIM B	DIM C	DIM D

TABLE 1 – BASKET LID CONFIGURATIONS
DRAWING 77612

NOTES

1. CARGO BASKETS S/N 77601-01, 77601-02, AND 77602-01 ARE PROTOTYPES.
THE DIMENSIONS GIVEN ABOVE APPLY TO THESE S/N BASKETS ONLY.
THE REMAINDER OF CONSTRUCTION REMAINS IN ACCORDANCE WITH DRAWING 77611 AND 77612.

THIS DRAWING CONTAINS INFORMATION AND DATA WHICH IS PROPRIETARY TO AERO DESIGN LTD. THIS DRAWING, OR ANY PORTION THEREOF, MAY NOT BE REPRODUCED, COPIED, OR DUPLICATED IN ANY MANNER, NOR USED FOR MANUFACTURING WITHOUT THE WRITTEN CONSENT OF AERO DESIGN LTD. BY ACCEPTING THIS DRAWING FOR REFERENCE, THE RECIPIENT AGREES TO HOLD AERO DESIGN LTD. HARMLESS FROM THE USE, OR MISUSE, OF THIS DRAWING OR THE INFORMATION CONTAINED THEREON.	APPROVALS	DATE	AERO DESIGN LTD. CONSULTING ENGINEERS, TRANSPORT CANADA APPROVALS, DAR 290M 2013 - 39TH AVENUE N.E., CALGARY, ALBERTA, CANADA, T2E 6R7 tel: (403) 250-8027 fax: (403) 250-8333 aerodesign@telusplanet.net			
	DRAWN: JEFF CLARKE	13 MAR 2008				
	CHECKED: E. BURGOIN					
	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. TOLERANCES ON: DECIMALS ANGLES X.XXX ±0.010 ±1/2° X.XX ±0.03 X.X ±0.1		EUROCOPTER AS350 & AS355 SERIES QUICK RELEASE CARGO BASKET PROTOTYPE DISPOSITION			
			SCALE 1 : 1	DWG. SIZE	DWG. NO.	REV.
		SHEET 1 OF 1	A4	DCN776	0	

**VIH Helicopters Ltd.**

1962 Canso Road
North Saanich, B.C. V8Z 5V5
Phone: (250) 656-3987 Cell (250) 713-2932
Fax: (250) 655-6849
Email: ctaylor@vih.com

FILE

Aero Design
2013 39th Ave NE
Calgary, AB
T2E 6R7

Att: Ted Burgoyne

Dear Ted,

This letter is to confirm that we wish you to apply, on our behalf, for a flight permit from Transport Canada, for the purpose of testing a new utility basket design for Eurocopter EC30 (Astar) model helicopters.

Our aircraft will be C-FTDE, flown by Ian Wood. He'll be arriving on Sunday night and will have an engineer with him as well as dual controls for installation prior to the flight with the Transport Canada test pilot. Our A.M.E. will supervise the install and sign the appropriate documents upon completion.

Hopefully this letter will suffice, and if you have anything to add please give me a call.

Best regards,



Corey Taylor
Operations Manager
VIH Helicopters
(250) 713-2932
ctaylor@vih.com





VIH HELICOPTERS LTD.
a member of the VIH Aviation Group of Companies
VICTORIA INTERNATIONAL AIRPORT
1962 CANSO ROAD, NORTH SAANICH BC CANADA V8L 5V5
TEL. (250) 656-3987 FAX (250) 655-6839

FLIGHT TICKET
101623

DATE 03 / 18 / 2008
MONTH DAY YEAR

CUSTOMER INFORMATION

P.O. / CONTRACT NO. _____
NAME VIH Non Rev.
ADDRESS _____
CITY _____ PROV. _____ POSTAL CODE _____
TEL. NO. _____
CONTACT _____ CUST. CODE _____

AIRCRAFT / CREW INFORMATION

LOCATION Calgary/Cy Bw FLIGHT TYPE 0
BASE 39 A/C REG. IDE A/C TYPE 14
PILOT 1 NAME Gerd Fiedelke
PILOT 2 NAME _____
ENGINEER 1 NAME Dave Fields
ENGINEER 2 NAME _____
NO. OF PASSENGERS _____

DESCRIPTION OF SERVICE PROVIDED AND PASSENGER NAMES				START TIME	END TIME	FLIGHT HOURS	RATE PER HOUR
<u>Aerodesign utility basket test flight</u>				<u>1415</u>	<u>1715</u>	<u>2.5</u>	
							AMOUNT
				TOTAL FLIGHT HOURS		<u>2.5</u>	
				A/C MINIMUMS			
Truck Unit Number(s) _____ Service Van/Trailer No. _____				TOTAL BILLABLE HOURS			
BILLABLE CREW COST CHARGES					HOURS	RATE	
DESCRIPTION		LOCATION	AMOUNT	CUSTOMER SUPPLIED FUEL		\$ 0.00	\$ 0.00
Pilot-1	Pilot-2	Eng-1	Eng-2	LOCATION		HOURS/UNITS	RATE
Breakfast	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	FUEL	<u>39</u>	<u>2.5</u>	
Lunch	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	FUEL			
Dinner	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	OIL	<u>39</u>	<u>2.5</u>	
Accommodations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	LANDING FEE			
Vehicle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	LANDING FEE			
Trailer & Sliptank	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	SATELLITE TRACKING - AFF			
Enviro Tank	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	PILOT MINIMUM			
Other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ENG. MINIMUM			
SUB TOTAL				CARRY OVER TOTAL			
ADDITIONAL CHARGES						HOURS/UNITS	RATE
FREIGHT (LBS.)	CARGO DECLARED VALUE	ADDITIONAL SLUNG CARGO INSURANCE	CUSTOMER SIGNATURE (FOR INSURANCE)	DANGEROUS GOODS CARRIED		SUB TOTAL	
		<input type="checkbox"/> Requested <input type="checkbox"/> Declined	X	<input type="checkbox"/> Yes <input type="checkbox"/> No		GST	\$
						TOTAL INVOICE	

TERMS: NET 30 FROM INVOICE DATE. INTEREST AT 2% PER MONTH (26.8% PER ANNUM) CHARGED ON OVERDUE ACCOUNTS.
NOTICE OF LIMITATION OF LIABILITY THE CARRIAGE OF PASSENGERS, BAGGAGE AND GOODS IS SUBJECT TO THE TERMS, CONDITIONS AND LIMITATIONS OF LIABILITY SET FORTH IN THE VIH HELICOPTERS LTD. TARIFF FILED WITH THE CTA (MINIMUM CTA LIMITS), AN EXTRACT OF WHICH IS AVAILABLE FOR EXAMINATION AT THE OFFICES OF VIH HELICOPTERS LTD.

GST REGISTRATION NO. R105484034

PRINT NAME OF PERSON AUTHORIZED TO SIGN

AUTHORIZED SIGNATURE

PILOT SIGNATURE

WHITE - CUSTOMER COPY YELLOW - ACCOUNTING COPY PINK - INVOICE COPY GREEN - BASE COPY GOLD - PILOT COPY

DATE 03 / 1 / 2008
MONTH DAY YEAR

CUSTOMER INFORMATION

P.O. / CONTRACT NO.

NAME VTH Non Rev

ADDRESS

CITY PROV. POSTAL CODE

TEL. NO.

CONTACT	CUST. CODE
---------	------------

AIRCRAFT / CREW INFORMATION

LOCATION Calgary / CYBW FLIGHT TYPE O

BASE 39 A/C REG. 770F A/C TYPE 14

PILOT 1 NAME Gerd Biddelke

PILOT 2 NAME

ENGINEER 1 NAME Dave Fields

ENGINEER 2 NAME

NO. OF PASSENGERS

DESCRIPTION OF SERVICE PROVIDED AND PASSENGER NAMES				START TIME	END TIME	FLIGHT HOURS	RATE PER HOUR	
Aerodesign utility basket test flight				1330	1820	2.2		
								AMOUNT
				TOTAL FLIGHT HOURS		2.2		
				A/C MINIMUMS				
Truck Unit Number(s) _____ Service Van/Trailer No. _____				TOTAL BILLABLE HOURS				
BILLABLE CREW COST CHARGES						HOURS	RATE	
DESCRIPTION		LOCATION		AMOUNT		CUSTOMER SUPPLIED FUEL		
Pilot-1 Pilot-2 Eng-1 Eng-2						LOCATION		HOURS/UNITS
Breakfast <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>						FUEL		39 2.2
Lunch <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>						FUEL		
Dinner <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>						OIL		39 2.2
Accommodations <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>						LANDING FEE		
Vehicle <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>						LANDING FEE		CYBW 6
Trailer & Sliptank <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>						SATELLITE TRACKING - AFF		
Enviro Tank <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>						PILOT MINIMUM		
Other <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>						ENG. MINIMUM		
SUB TOTAL				CARRY OVER TOTAL				
ADDITIONAL CHARGES						HOURS/UNITS	RATE	
FREIGHT (LBS.)	CARGO DECLARED VALUE	ADDITIONAL SLUNG CARGO INSURANCE	CUSTOMER SIGNATURE (FOR INSURANCE)	DANGEROUS GOODS CARRIED		SUB TOTAL		
		<input type="checkbox"/> Requested <input type="checkbox"/> Declined	X	<input type="checkbox"/> Yes <input type="checkbox"/> No		GST		\$
TERMS: NET 30 FROM INVOICE DATE. INTEREST AT 2% PER MONTH (26.8% PER ANNUM) CHARGED ON OVERDUE ACCOUNTS.						TOTAL INVOICE		
NOTICE OF LIMITATION OF LIABILITY THE CARRIAGE OF PASSENGERS, BAGGAGE AND GOODS IS SUBJECT TO THE TERMS, CONDITIONS AND LIMITATIONS OF THE CARRIER'S TARIFFS AND GENERAL CONDITIONS OF CARRIAGE AVAILABLE FOR EXAMINATION.								

TERMS: NET 30 FROM INVOICE DATE. INTEREST AT 2% PER MONTH (26.8% PER ANNUM) CHARGED ON OVERDUE ACCOUNTS

NOTICE OF LIMITATION OF LIABILITY THE CARRIAGE OF PASSENGERS, BAGGAGE AND GOODS IS SUBJECT TO THE TERMS, CONDITIONS AND LIMITATIONS OF LIABILITY SET FORTH IN THE VIH HELICOPTERS LTD. TARIFF FILED WITH THE CTA (MINIMUM CTA LIMITS), AN EXTRACT OF WHICH IS AVAILABLE FOR EXAMINATION AT THE OFFICES OF VIH HELICOPTERS LTD.

GST REGISTRATION NO. R105484034

PRINT NAME OF PERSON AUTHORIZED TO SIGN

AUTHORIZED SIGNATURE

PILOT SIGNATURE

WHITE - CUSTOMER COPY YELLOW - ACCOUNTING COPY PINK - INVOICE COPY GREEN - BASE COPY GOLD - PILOT COPY

04/07 REV. 3

MSI 53 – Review of Supplemental Instructions for Continued Airworthiness

APPENDIX A-3 NORMAL CATEGORY ROTORCRAFT – CAR 529

BLOCK 1

Name of the applicant for the design change approval:	Aero Design Ltd.
Description of the design change:	Installation of Quick Release Cargo Basket on Eurocopter AS350 & AS355 Series
Certification Basis of design change and revision date:	FAR 27, Amendment 27-20
CAR Standard AS27.1(c) Program showing how changes to supplemental ICA made by the applicant or by the manufacturers of products and appliances installed in the aeroplane pursuant to the design change will be distributed:	Section 0-3 of Supplemental ICA (ICA 764.90)
CAR Standard 513.05 (1) (g) (iv): Installation Instructions:	Installation Drawing 76401, 77601, 77602, 78401, 78402, 78601

BLOCK 2

Note: Enter "N/A" when no supplemental ICA are needed.

Regulatory Standard Reference Column 1	Design Approval Holder (DAH) ICA Reference Column 2	Applicant Means of Compliance Supplemental ICA Requirements Column 3
A527.2 (a) Manual(s) (a) The Instructions for Continued Airworthiness must be in the form of a manual or manuals as appropriate for the quantity of data to be provided.	ICA ref: Eurocopter AS350/AS355 Maintenance Manuals	Supplemental ICA ref: Single Manual (ICA764.90)
A527.2 (b) Practical arrangement (b) The format of the manual or manuals must provide for a practical arrangement.	ICA ref: Eurocopter AS350/AS355 Maintenance Manual	Supplemental ICA ref: Arranged in ATA format
A527.3 The Instructions for Continued Airworthiness must contain the following manuals or sections, as appropriate, and information;		
A527.3 (a) Rotorcraft maintenance manual or section		
A527.3 (a) (1) (Introduction) (1) Introduction information that includes an explanation of the rotorcraft's features and data to the extent necessary for maintenance or preventive maintenance.	ICA ref: Eurocopter Description and Operation Manual	Supplemental ICA ref: Section 0-1
A527.3 (a) (2) (Description) (2) A description of the rotorcraft and its systems and installations including its engines, rotors, and appliances.	ICA ref: Eurocopter Description and Operation Manual	Supplemental ICA ref: Section 0-5

MSI 53 – Review of Supplemental Instructions for Continued Airworthiness

Regulatory Standard Reference Column 1	Design Approval Holder (DAH) ICA Reference Column 2	Applicant Means of Compliance Supplemental ICA Requirements Column 3
A527.3 (a) (3) Control & Operation (3) Basic control and operation information describing how the rotorcraft components and systems are controlled and how they operate, including any special procedures and limitations that apply.	ICA ref: Eurocopter Description and Operation Manual	Supplemental ICA ref: N/A
A527.3 (a) (4) Servicing (4) Servicing information that covers details regarding servicing points, capacities of tanks, reservoirs, types of fluids to be used, pressures applicable to the various systems, location of access panels for inspection and servicing, locations of lubrication points, lubricants to be used, equipment required for servicing, low instructions and limitations, mooring, jacking, and levelling information.	ICA ref: Eurocopter AS350/AS355 Maintenance Manual, Chapter 12	Supplemental ICA ref: N/A
A527.3 The Instructions for Continued Airworthiness must contain the following manuals or sections, as appropriate, and information:		
A527.3 (b) Maintenance Instructions. A527.3 (b) (1) Scheduling 1) Scheduling information for each part of the rotorcraft and its engines, auxiliary power units, rotors, accessories, instruments, and equipment that provides the recommended periods at which they should be cleaned, inspected, adjusted, tested, and lubricated, and the degree of inspection, the applicable wear tolerances, and work recommended at these periods. However, the applicant may refer to an accessory, instrument, or equipment manufacturer as the source of this information if the applicant shows that the item has an exceptionally high degree of complexity requiring specialized maintenance techniques, test equipment, or expertise. The recommended overhaul periods and necessary cross-references to the Airworthiness Limitations section of the manual must also be included. In addition, the applicant must include an inspection program that includes the frequency and extent of the inspections necessary to provide for the continued airworthiness of the rotorcraft.	ICA ref: Eurocopter AS350/AS355 Maintenance Manual, Chapter 5	Supplemental ICA ref: Section 5-1
A527.3 (b) (2) Troubleshooting (2) Troubleshooting information describing probable malfunctions, how to recognize those malfunctions, and the remedial action for those malfunctions.	ICA ref: N/A	Supplemental ICA ref: N/A

MSI 53 – Review of Supplemental Instructions for Continued Airworthiness

Regulatory Standard Reference Column 1	Design Approval Holder (DAH) ICA Reference Column 2	Applicant Means of Compliance Supplemental ICA Requirements Column 3
A527.3 (b) (3) Removal/replacement (3) Information describing the order and method of removing and replacing products and parts with any necessary precautions to be taken.	ICA ref: Eurocopter AS350/AS355 Maintenance Manual, Chapter 25	Supplemental ICA ref: Section 25-1 thru 25-4
A527.3 (b) (4) General (4) Other general procedural instructions including procedures for system testing during ground running, symmetry checks, weighing and determining the center of gravity, lifting and shoring, and storage limitations.	ICA ref: Eurocopter AS350/AS355 Maintenance Manual, Chapter 7 and 8	Supplemental ICA ref: Section 25-5
A527.3 (c) Access (c) Diagrams of structural access plates and information needed to gain access for inspections when access plates are not provided.	ICA ref: N/A	Supplemental ICA ref: N/A
A527.3 (d) Special inspections (d) Details for the application of special inspection techniques including radiographic and ultrasonic testing where such processes are specified.	ICA ref: Eurocopter AS350/AS355 Maintenance Manual, Chapter 5	Supplemental ICA ref: Section 5-1
A527.3 (e) Protective treatment (e) Information needed to apply protective treatments to the structure after inspection.	ICA ref: Eurocopter Standard Practices Manual, Chapter 20	Supplemental ICA ref: Section 5-3
A527.3 (f) Fasteners, torque values, etc (f) All data relative to structural fasteners such as identification, discard recommendations, and torque values.	ICA ref: Eurocopter Standard Practices Manual, Chapter 20	Supplemental ICA ref: Section 25-6
A527.3 (g) Special tools (g) A list of special tools needed.	ICA ref: Eurocopter Tools Catalog	Supplemental ICA ref: N/A

BLOCK 3

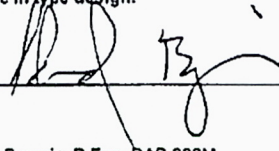
Note: The statement in block 5 does not constitute an approval of the Airworthiness Limitations Section. Airworthiness Limitations differ from other maintenance tasks, in that they are mandatory, as a direct condition of the approval of the type design. They are therefore referenced directly in the approval document itself. However, they must also be included in the Supplemental Instructions for Continued Airworthiness.

MSI 53 – Review of Supplemental Instructions for Continued Airworthiness

<p>A527.4 AWL - Separate Section 1 The Instructions for Continued Airworthiness must contain a section titled Airworthiness Limitations that is segregated and clearly distinguishable from the rest of the document. This section must set forth each mandatory replacement time, structural inspection interval, and related structural inspection procedure approved under 527.571. If the Instructions for Continued Airworthiness consist of multiple documents, the section required by this paragraph must be included in the principal manual. This section must contain a legible statement in a prominent location that reads: "The Airworthiness Limitations section is approved by the Minister and specifies maintenance required by any applicable airworthiness or operating rule unless an alternative program has been approved by the Minister."</p>	<p>ICA ref: Eurocopter AS350/AS355 Maintenance Manual, Chapter 4</p>	<p>Supplemental ICA ref: Chapter 4</p>
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BLOCK 4 – Applicant Statement of Compliance

The Supplemental ICA referenced above comprises the complete listing of supplemental ICA necessary to show compliance with the regulatory standard that supports this change in type design.

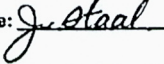
Applicants Signature:  Date: March 13, 2008

Applicants Name: E. Burgoin, P.Eng. DAR 290M

BLOCK 5 – Minister's Statement of Acceptability

The design change is adequately supported by existing ICA and/or supplemental ICA, as identified above and is acceptable to the Minister.

Reviewer's Name: J. STAAL Phone # 780-485-5227 Email: staal@tc.gc.ca Mail Routing Symbol: RAED

Signature:  Date: 8 April 2008 NAPA Number C-08-0181



Transport
Canada

Transports
Canada

1100-9700 Jasper Avenue
Edmonton, Alberta T5J 4E6

September 30, 2008

Your file Votre référence

Department of Transportation
Federal Aviation Administration
New York Aircraft Certification Office ANE-170
1600 Stewart Avenue
Suite 410
Westbury, NY 11590
U S A

Our file Notre référence
C-08-0784
SH08-16

Attention: Anthony Socias

Dear Sirs:

**SUBJECT: Application for FAA Supplemental Type Certificate
Cargo Basket Installation**

We have received an application from a Canadian company, Aero Design Ltd., for the issue of a Canadian Supplemental Type Certificate (STC) and an FAA STC to cover Cargo Basket Installation on Rotorcraft.

We have reviewed the applicant's submission and certify that the design change complies with the basis of certification specified in Canadian Type Certificates H-83 and H-87. We have issued STC SH08-16, Issue 1, dated April 11, 2008. We also confirm that compliance is demonstrated with FAA Type Certificate H9EU, H11EU, unless additional technical conditions are applied by the FAA.

Please consider this to be a formal application for an FAA STC under the provision of the Canada/U.S. Bilateral Airworthiness Agreement. In support of this application, a letter from Aero Design Ltd. dated 15 September 2008, and documents listed thereon, is enclosed. Additionally, the following documents are provided:

- TCCA Flight Test Report;
- CPR Decision Record;
- MSI 53 – Review of ICA;
- Documents on Disc in .pdf format is also enclosed.

Regarding ICA 764.90, it is realized the wording of the Airworthiness Limitation section will likely not meet AEG/FAA criteria. Please advise if this is the only change the AEG will require

Yours truly,

J. Staal
Aircraft Certification Engineering Technologist
Prairie and Northern Region
Phone: 780-495-5227
Facs: 780-495-7963

enclosure(s)

cc: **Aero Design Ltd.**

Canada



Transport
Canada

Transports
Canada

1100-9700 Jasper Avenue
Edmonton, Alberta T5J 4E6

April 16, 2008

Your file Votre référence
764

Our file Votre référence
C-08-0181
SH08-16

Aero Design Ltd.
2013 39th Avenue North East
Calgary, Alberta
Canada, T2E 6R7

Dear Sirs:

**SUBJECT: SUPPLEMENTAL TYPE CERTIFICATE NO. SH08-16 – ISSUE 1 DATED
APRIL 11, 2008 – INSTALLATION OF EXTERNAL ATTACHMENT
PROVISIONS AND CARGO BASKET – EUROCOPTER AS 350 B1, AS 350 B2,
AS 350 B3, AS 350 BA, AS 350 D, AS 350 D1,
EUROCOPTER FRANCE AS 355 E, AS 355 F, AS 355 F1, AS 355 F2,
AS 355 N, AS 355 NP – ISSUED TO AERO DESIGN LTD.**

This Supplemental Type Certificate (STC) is issued in response to your application. Included with the STC are the documents bearing the original Transport Canada signatures.

The transfer of this SH08-16 in the name of another person requires the prior approval from the Minister in accordance with Canadian Aviation Regulations (CAR) 513.25.

The requirements of CAR 561 apply where parts are manufactured and offered for sale. The provisions of CAR 571.06(4) should also be consulted.

A Canadian holder is required to report any service problem experienced with their product. Therefore, should you become aware of any defect, malfunction or failure resulting from the design change, it is your responsibility to submit a Service Difficulty Report to Transport Canada in accordance with CAR V, Subpart 91.

Yours truly,

J. Staal
Aircraft Certification Engineering Technologist
Prairie and Northern Region
Phone: 780-495-5227
Facs: 780-495-7963

Encl.

Canada



Transport Canada Transports Canada

Department of Transport

Supplemental Type Certificate

This approval is issued to:

Aero Design Ltd.
2013 39th Avenue North East
Calgary, Alberta
Canada T2E 6R7

Number: SH08-16

Issue No.: 1

Approval Date: April 11, 2008

Issue Date: April 11, 2008

Responsible Office:

Prairie and Northern

Aircraft/Engine Type or Model:

EUROCOPTER AS 350 B, AS 350 B1, AS 350 B2, AS 350 B3,
AS 350 BA, AS 350 D, AS 350 D1,
EUROCOPTER FRANCE AS 355 E, AS 355 F, AS 355 F1, AS
355 F2, AS 355 N, AS 355 NP

Canadian Type Certificate or Equivalent:

H-83, H-87

Description of Type Design Change:

Installation of External Attachment Provisions and Cargo
Basket.

**Installation/Operating Data,
Required Equipment and Limitations:**

Configuration A – External Attachment Provisions Only:

Installation of External Attachment Provisions to be completed in accordance with Transport Canada approved, AERO Design Ltd. Document Control List, DCL786-1, Revision 0, dated 06 March 2008, or later approved revision.

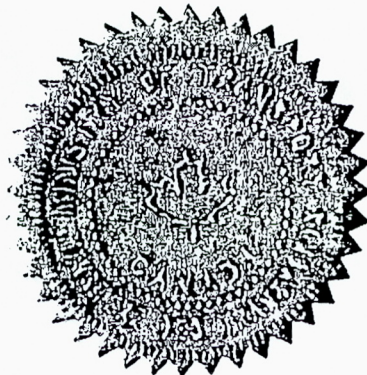
External Attachment Provisions installed in accordance with DCL786-1 may remain installed if the basket installation is removed.

Configuration B – External Cargo Basket (Short Basket):

Installation of Configuration A, External Attachment Provisions, is a prerequisite for installation of Configuration B, External Cargo Basket Installation. Installation of Quick Release Cargo Basket to be completed in accordance with Transport Canada approved, AERO Design Ltd. Document Control List, DCL776-1, Revision 0, dated 06 March 2008, or later approved revision.

...See Continuation Sheet

Conditions: This approval is only applicable to the type/model of aeronautical product specified therein. Prior to incorporating this modification, the installer shall establish that the interrelationship between this change and any other modification(s) incorporated **will not** adversely affect the airworthiness of the modified product.




D.S. Austen
For Minister of Transport

Canada



NOTE: THIS ADDENDUM SHALL REMAIN PART OF THE CERTIFICATE REFERRED TO THEREIN.

Configuration C – External Cargo Basket (Short Basket – Alternate):

Installation of Configuration A, External Attachment Provisions, is a prerequisite for installation of Configuration C, External Cargo Basket Installation. Installation of Quick Release Cargo Basket to be completed in accordance with Transport Canada approved, AERO Design Ltd. Document Control List, DCL776-2, Revision 0, dated 06 March 2008, or later approved revision.

Configuration D – External Cargo Basket (Medium Basket):

Installation of Configuration A, External Attachment Provisions, is a prerequisite for installation of Configuration D, External Cargo Basket Installation. Installation of Quick Release Cargo Basket to be completed in accordance with Transport Canada approved, AERO Design Ltd. Document Control List, DCL764-1, Revision 0, dated 06 March 2008, or later approved revision.

Configuration E – External Cargo Basket (Long Basket)

Installation of Configuration A, External Attachment Provisions, is a prerequisite for installation of Configuration E, External Cargo Basket Installation. Installation of Quick Release Cargo Basket to be completed in accordance with Transport Canada approved, AERO Design Ltd. Document Control List, DCL784-1, Revision 0, dated 06 March 2008, or later approved revision.

Configuration F – External Cargo Basket (Long Basket – Alternate)

Installation of Configuration A, External Attachment Provisions, is a prerequisite for installation of Configuration F, External Cargo Basket Installation. Installation of Quick Release Cargo Basket to be completed in accordance with Transport Canada approved, AERO Design Ltd. Document Control List, DCL784-2, Revision 0, dated 06 March 2008, or later approved revision.

Cargo Basket Modifications:

Modifications to the Cargo Basket configurations are eligible in accordance with Transport Canada approved, AERO Design Ltd., Document Control List DCL704, Revision 2, dated 19 March 2008, or later approved revision. Eligibility limitations are noted on the drawings.

Data Pertinent to All Configurations:

Transport Canada approved, AERO Design Ltd. Flight Manual Supplement FMS764-91, Revision 0, dated 25 February 2008, or later approved revision is required with this installation.

...See Continuation Sheet



(Continuation Sheet)

Number: SH08-16 Issue 1

NOTE: THIS ADDENDUM SHALL REMAIN PART OF THE CERTIFICATE REFERRED TO THEREIN.

Transport Canada accepted, AERO Design Ltd. Instructions for Continued Airworthiness ICA764-90, Revision 0, dated 25 February 2008, or later accepted revision is required with this installation.


Basis of Certification: FAR 27 amendment 20, plus select paragraphs of amendment 21 (AS355NP basis not including Cat A). Airworthiness Manual Chapter 527.1581 - SI units.

— End —

DOCUMENT CONTROL LIST

DOCUMENT NO.	DOCUMENT CONTENT	REVISION	
INSTALLATION DOCUMENTS			
78601	Basket Installation Provision	0	
ICA764.90	Instructions for Continued Airworthiness	0	
FABRICATION DOCUMENTS			
DCL786-3	Document Control List - Provision Assembly	0	
ENGINEERING DOCUMENTS			
APPROVAL:			
<div style="border: 1px solid black; padding: 5px;"> <div style="display: inline-block; text-align: center;"> Transport Canada </div> <div style="display: inline-block; text-align: center;"> Transports Canada </div> </div> <div style="margin-top: 10px;"> AIRCRAFT CERTIFICATION DIVISION <div style="text-align: center; border-top: 1px solid black; padding-top: 5px;"> APPROVED </div> By <u><i>D.S. Austin</i></u> Appr'l No. <u>SH08-16</u> Appr'l Date <u>08-04-11</u> Issue No. <u>1</u> Issue Date <u>08-04-11</u> <small>YY-MM-DD</small> </div>	ORIGINAL DATE: 06 March 2008 REVISION DATE:	<div style="text-align: center; font-weight: bold; font-size: 1.2em;">AERO DESIGN LTD.</div> 2013 - 39 th Ave NE, Calgary, Alberta, T2E 6R7 Ph. (403) 250-8027 Fax. (403) 250-8333	
	SHEET 1 OF 1	Eurocopter AS350 & AS355 Series Basket Provision Installation	
	DCL786-1		0

DOCUMENT CONTROL LIST

DOCUMENT NO.	DOCUMENT CONTENT	REVISION	
INSTALLATION DOCUMENTS			
77601	Quick Release Cargo Basket Installation	0	
ICA764.90	Instructions for Continued Airworthiness	0	
FMS764.91	Flight Manual Supplement	0	
FABRICATION DOCUMENTS			
DCL776-3	Document Control List - Basket Assembly	0	
ENGINEERING DOCUMENTS			
APPROVAL:			
 <div style="display: flex; justify-content: space-between;"> <div>Transport Canada</div> <div>Transports Canada</div> </div> <div style="text-align: center;"> AIRCRAFT CERTIFICATION DIVISION APPROVED By <u><i>D. S. Rusten</i></u> App'l No. <u>SH08-16</u> App'l Date <u>08-04-11</u> Issue No. <u>1</u> Issue Date <u>08-04-11</u> <small>TC-221-00</small> </div>	ORIGINAL DATE: 06 March 2008 REVISION DATE:	<div style="text-align: center;"> AERO DESIGN LTD. 2013 - 39th Ave NE, Calgary, Alberta, T2E 6R7 Ph. (403) 250-8027 Fax. (403) 250-8333 </div>	
	SHEET 1 OF 1	Eurocopter AS350 & AS355 Series Quick Release Cargo Basket Installation	
	DCL776-1	Rev. 0	


DOCUMENT CONTROL LIST

DOCUMENT NO.	DOCUMENT CONTENT	REVISION
INSTALLATION DOCUMENTS		
77602	Quick Release Cargo Basket Installation	0
ICA764.90	Instructions for Continued Airworthiness	0
FMS764.91	Flight Manual Supplement	0
FABRICATION DOCUMENTS		
DCL776-3	Document Control List - Basket Assembly	0
ENGINEERING DOCUMENTS		
<div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> <p>APPROVAL:</p> <div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> <div style="display: flex; justify-content: space-between;"> Transport Canada Transport Canada </div> <p style="text-align: center;">AIRCRAFT CERTIFICATION DIVISION</p> <p style="text-align: center; font-weight: bold;">APPROVED</p> <p>By <u><i>D. S. Austin</i></u></p> <p>Apprl No. <u>SH08-16</u></p> <p>Apprl Date <u>08-04-11</u></p> <p>Issue No. <u>1</u></p> <p>Issue Date <u>08-04-11</u></p> <p style="text-align: center; font-size: small;">YY-MM-DD</p> </div> </div> <div style="width: 40%;"> <p>ORIGINAL DATE: 06 March 2008</p> <p>REVISION DATE:</p> </div> <div style="width: 30%; text-align: center;"> <p>AERO DESIGN LTD.</p> <p>2013 – 39th Ave NE, Calgary, Alberta, T2E 6R7</p> <p>Ph. (403) 250-8027</p> <p>Fax. (403) 250-8333</p> </div> </div> <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <div style="width: 30%;"> <p>SHEET 1 OF 1</p> </div> <div style="width: 40%; text-align: center;"> <p>Eurocopter AS350 & AS355 Series</p> <p>Quick Release Cargo Basket Installation</p> </div> </div> <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <div style="width: 60%; text-align: center;"> <p style="font-size: 2em; font-weight: bold;">DCL776-2</p> </div> <div style="width: 35%; text-align: center;"> <p>Rev.</p> <p style="font-size: 2em; font-weight: bold;">0</p> </div> </div>		

DOCUMENT CONTROL LIST

DOCUMENT NO.	DOCUMENT CONTENT	REVISION
INSTALLATION DOCUMENTS		
76401	Quick Release Cargo Basket Installation	0
ICA764.90	Instructions for Continued Airworthiness	0
FMS764.91	Flight Manual Supplement	0
FABRICATION DOCUMENTS		
DCL764-3	Document Control List - Basket Assembly	0
ENGINEERING DOCUMENTS		
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<p style="text-align: center;">SHEET 1 OF 1</p>		<p style="text-align: center; font-weight: bold;">Eurocopter AS350 & AS355 Series Quick Release Cargo Basket Installation</p>
DCL764-1		<p style="text-align: center;">Rev.</p> <p style="text-align: center; font-size: 2em; font-weight: bold;">0</p>


DOCUMENT CONTROL LIST

DOCUMENT NO.	DOCUMENT CONTENT	REVISION
INSTALLATION DOCUMENTS		
78401	Quick Release Cargo Basket Installation	0
ICA764.90	Instructions for Continued Airworthiness	0
FMS764.91	Flight Manual Supplement	0
FABRICATION DOCUMENTS		
DCL784-3	Document Control List - Basket Assembly	0
ENGINEERING DOCUMENTS		
APPROVAL:		
<div style="display: flex; justify-content: space-between;"> <div style="width: 30%;">  <p>Transport Canada Transports Canada</p> <p>AIRCRAFT CERTIFICATION DIVISION</p> <p style="text-align: center;">APPROVED</p> <p>By <u><i>D. S. [Signature]</i></u></p> <p>Appr'l No. <u>5408-16</u></p> <p>Appr'l Date <u>08-04-11</u></p> <p>Issue No. <u>1</u></p> <p>Issue Date <u>08-04-11</u></p> <p style="text-align: center;"><small>YY-MM-DD</small></p> </div> <div style="width: 40%;"> <p>ORIGINAL DATE: 06 March 2008</p> <p>REVISION DATE:</p> </div> <div style="width: 30%; text-align: center;"> <p>AERO DESIGN LTD.</p> <p>2013 - 39th Ave NE, Calgary, Alberta, T2E 6R7</p> <p>Ph. (403) 250-8027</p> <p>Fax. (403) 250-8333</p> </div> </div>		
SHEET 1 OF 1		Eurocopter AS350 & AS355 Series Quick Release Cargo Basket Installation
DCL784-1		Rev. 0


DOCUMENT CONTROL LIST

DOCUMENT NO.	DOCUMENT CONTENT	REVISION
INSTALLATION DOCUMENTS		
78402	Quick Release Cargo Basket Installation	0
ICA764.90	Instructions for Continued Airworthiness	0
FMS764.91	Flight Manual Supplement	0
FABRICATION DOCUMENTS		
DCL784-3	Document Control List - Basket Assembly	0
ENGINEERING DOCUMENTS		
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SHEET 1 OF 1		Eurocopter AS350 & AS355 Series Quick Release Cargo Basket Installation
DCL784-2		Rev. 0

DOCUMENT CONTROL LIST

DOCUMENT NO.	DOCUMENT CONTENT	REVISION
FABRICATION DOCUMENTS		
70401	Open Forward End Modification	0
70402	Lid Door Modification	1
70403	Auxiliary Latch Modification	1
70404	Open Forward End Modification	1
70405	Lid Step Modification	1
70406	Open Forward End Modification	0
<p>70401 & 70404 ARE NOT APPLICABLE TO A5350 A5350 PER SH08-16. SEE AE-100 AE704 <i>DA.</i></p>		
ENGINEERING DOCUMENTS		
ER704.02	Engineering Report	0
APPROVAL:		
<div style="width: 30%;">  <p>Transport Canada Transports Canada</p> <p>AIRCRAFT CERTIFICATION DIVISION</p> <p>APPROVED</p> <p>By <i>D. S. Quater</i></p> <p>Appr'l No. <u>SH08-16</u></p> <p>Appr'l Date <u>08-04-11</u></p> <p>Issue No. <u>1</u></p> <p>Issue Date <u>08-04-11</u></p> <p style="font-size: small;">YY - MM - DD</p> </div> <div style="width: 30%;"> <p>ORIGINAL DATE: 10 May 2006</p> <p>REVISION DATE: 19 March, 2008</p> </div> <div style="width: 35%; text-align: center;"> <p>AERO DESIGN LTD.</p> <p>2013 - 39th Ave NE, Calgary, Alberta, T2E 6R7</p> <p>Ph. (403) 250-8027</p> <p>Fax. (403) 250-8333</p> </div>		

DOCUMENT CONTROL LIST

DOCUMENT NO.	DOCUMENT CONTENT	REVISION	
INSTALLATION DOCUMENTS			
FABRICATION DOCUMENTS			
77610	Basket Assembly	0	
77611	Basket Body Assembly	0	
77612	Lid Assembly	0	
76421	Hoop	0	
76422	Hoop Assembly	0	
77627	Placard	0	
77628	Placard	0	
69823	Lug	1	
49215	Spacer	0	
49216	Spacer	0	
36255	Handle Assembly	1	
36261	Handle Bar Assembly	4	
36262	Handle Bracket Assembly	1	
36271	Handle Lever	1	
36272	Basket Bracket	1	
36273	Lid Bracket	1	
36274	Bushing	1	
36275	Bushing	2	
36277	Handle Bar	0	
36278	Spring	2	
36280	Brace Assembly	2	
ENGINEERING DOCUMENTS			
ER764.01	Engineering Report	0	
TP764.02	Test Plan/Report	0	
FTP764.03	Flight Test Plan/Report	0	
APPROVAL:			
 <div style="display: flex; justify-content: space-between;"> <div>Transport Canada</div> <div>Transporta Canada</div> </div> <div style="text-align: center;"> AIRCRAFT CERTIFICATION DIVISION APPROVED By <u>D. S. Austin</u> Appr'l No. <u>SH08-16</u> Appr'l Date <u>08-04-11</u> Issue No. <u>1</u> Issue Date <u>08-04-11</u> <small>YY - MM - DD</small> </div>	ORIGINAL DATE: 06 March 2008	AERO DESIGN LTD. 2013 - 39 th Ave NE, Calgary, Alberta, T2E 6R7 Ph. (403) 250-8027 Fax. (403) 250-8333	
	REVISION DATE:		
		SHEET 1 OF 1	Eurocopter AS350 & AS355 Series Quick Release Cargo Basket Basket Assembly
	DCL776-3		Rev. 0

DOCUMENT CONTROL LIST

DOCUMENT NO.	DOCUMENT CONTENT	REVISION	
INSTALLATION DOCUMENTS			
FABRICATION DOCUMENTS			
76410	Basket Assembly	0	
76411	Basket Body Assembly	0	
69812	Lid Assembly	1	
76421	Hoop	0	
76422	Hoop Assembly	0	
76423	Hoop Assembly	0	
76427	Placard	0	
69823	Lug	1	
69824	Rim	0	
49212	Rim	0	
49213	Lid Brace	1	
49215	Spacer	0	
49216	Spacer	0	
36255	Handle Assembly	1	
36261	Handle Bar Assembly	4	
36262	Handle Bracket Assembly	1	
36271	Handle Lever	1	
36272	Basket Bracket	1	
36273	Lid Bracket	1	
36274	Bushing	1	
36275	Bushing	2	
36277	Handle Bar	0	
36278	Spring	2	
36280	Brace Assembly	2	
ENGINEERING DOCUMENTS			
ER764.01	Engineering Report	0	
TP764.02	Test Plan/Report	0	
FTP764.03	Flight Test Plan/Report	0	
APPROVAL:			
<div style="border: 1px solid black; padding: 5px;"> <div style="display: inline-block; text-align: center;"> Transport Canada </div> <div style="display: inline-block; text-align: center;"> Transports Canada </div> </div> <div style="text-align: center; margin-top: 10px;"> AIRCRAFT CERTIFICATION DIVISION APPROVED By <u>D.S. Austin</u> App'l No. <u>SH08-16</u> App'l Date <u>08-04-11</u> Issue No. <u>1</u> Issue Date <u>08-04-11</u> <small>YY-MM-DD</small> </div>	ORIGINAL DATE:	AERO DESIGN LTD. 2013 - 39 th Ave NE, Calgary, Alberta, T2E 6R7 Ph. (403) 250-8027 Fax. (403) 250-8333	
	06 March 2008		
	REVISION DATE:	Eurocopter AS350 & AS355 Series Quick Release Cargo Basket Basket Assembly	
	SHEET 1 OF 1		
DCL764-3		Rev. 0	

DOCUMENT CONTROL LIST

DOCUMENT NO.	DOCUMENT CONTENT	REVISION
INSTALLATION DOCUMENTS		
FABRICATION DOCUMENTS		
78410	Basket Assembly	0
78411	Basket Body Assembly	0
78412	Lid Assembly	0
76421	Hoop	0
76422	Hoop Assembly	0
76423	Hoop Assembly	0
78427	Placard	0
78428	Placard	0
69823	Lug	1
49215	Spacer	0
49216	Spacer	0
36255	Handle Assembly	1
36261	Handle Bar Assembly	4
36262	Handle Bracket Assembly	1
36271	Handle Lever	1
36272	Basket Bracket	1
36273	Lid Bracket	1
36274	Bushing	1
36275	Bushing	2
36277	Handle Bar	0
36278	Spring	2
36280	Brace Assembly	2
ENGINEERING DOCUMENTS		
ER764.01	Engineering Report	0
TP764.02	Test Plan/Report	0
FTP764.03	Flight Test Plan/Report	0

APPROVAL: <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <div style="display: inline-block; text-align: center;"> Transport Canada </div> <div style="display: inline-block; text-align: center;"> Transports Canada </div> </div> <div style="margin-top: 10px;"> AIRCRAFT CERTIFICATION DIVISION APPROVED By <u><i>D. J. [Signature]</i></u> Appr'l No. <u>SH08-16</u> Appr'l Date <u>08-04-11</u> Issue No. <u>1</u> Issue Date <u>08-04-11</u> <small>YY - MM - DD</small> </div>	ORIGINAL DATE: 06 March 2008 REVISION DATE:	<div style="text-align: center;"> AERO DESIGN LTD. 2013 - 39th Ave NE, Calgary, Alberta, T2E 6R7 Ph. (403) 250-8027 Fax. (403) 250-8333 </div>
SHEET 1 OF 1	Eurocopter AS350 & AS355 Series Quick Release Cargo Basket Basket Assembly	
<div style="font-size: 2em; font-weight: bold;">DCL784-3</div>		Rev. <div style="font-size: 2em; font-weight: bold;">0</div>

DOCUMENT CONTROL LIST

DOCUMENT NO.	DOCUMENT CONTENT	REVISION
INSTALLATION DOCUMENTS		
FABRICATION DOCUMENTS		
78620	Clamp Assembly	0
78630	Low Beam Fabrication	0
78631	High Beam Fabrication	0
ENGINEERING DOCUMENTS		
ER764.01	Engineering Report	0
TR764.02	Load Test Plan/Report	0
FTP764.03	Flight Test Plan/Report	0

APPROVAL: <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <div style="display: inline-block; text-align: center;"> Transport Canada </div> <div style="display: inline-block; text-align: center;"> Transports Canada </div> </div> <div style="margin-top: 5px;"> AIRCRAFT CERTIFICATION DIVISION APPROVED By <u><i>D. S. Austin</i></u> App'l No. <u>SH08-16</u> App'l Date <u>08-04-11</u> Issue No. <u>1</u> Issue Date <u>08-04-11</u> <small>YY-MM-DD</small> </div>		ORIGINAL DATE: 06 March 2008 REVISION DATE:	<div style="text-align: center;"> AERO DESIGN LTD. 2013 - 39th Ave NE, Calgary, Alberta, T2E 6R7 Ph. (403) 250-8027 Fax. (403) 250-8333 </div>
SHEET 1 OF 1		Eurocopter AS350 & AS355 Series Basket Installation Provision Assembly	
<h2 style="margin: 0;">DCL786-3</h2>		Rev. <h2 style="margin: 0; text-align: center;">0</h2>	

AS350 & AS355 SERIES HELICOPTERS

ROTORCRAFT FLIGHT MANUAL SUPPLEMENT for the INSTALLATION of the AERO DESIGN QUICK RELEASE CARGO BASKET

**CARGO BASKET MODELS:
76401, 77601, 77602, 78401, 78402**

Supplemental Type Certificate No. SH08-16

Sections I, II, III and IV of this document comprise the Transport Canada Approved sections of this Flight Manual Supplement. Compliance with Section I, Limitations, is mandatory.

Section V and any subsequent sections if present are Unapproved and are provided for information only.

The information and data contained in this Flight Manual Supplement supersede or supplement that contained in the basic Approved Flight Manual for the Eurocopter AS350 and AS355 Series Helicopters when fitted with the Quick Release Cargo Basket Installation. For limitations, procedures and performance not listed in this Flight Manual Supplement, refer to the Approved Flight Manual and other approved Flight Manual Supplements.



AS350 & AS355 SERIES HELICOPTERS

ROTORCRAFT FLIGHT MANUAL SUPPLEMENT

for the

INSTALLATION of the AERO DESIGN QUICK RELEASE CARGO BASKET

CARGO BASKET MODELS:

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II	Normal Procedures	3
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Record of Revisions

Revision	Issue Date	Pages Revised	Date Inserted	By
0	25 Feb, 2008	None		

I LIMITATIONS

1. The maximum load in the AERO Design Ltd. Quick Release Cargo Basket Models 764 and 784 is 200 lb. (90.5 kg). The maximum load in the AERO Design Ltd. Quick Release Cargo Basket Model 776 is 300 lb. (135.7 kg).
2. Only one basket may be installed on the helicopter, on the right or left side.
3. Flight operations limited to VFR conditions with AERO Design Ltd. Quick Release Cargo Basket installed.
4. V_{NE} is unchanged from the basic rotorcraft.
5. AS355NP only: For Category A operations, the basket must be removed. Mounting provisions may be left in place.

II NORMAL PROCEDURES

1. Pre-flight inspections:
 - a) Ensure that all cargo stored in the cargo basket is properly tied down and secured for flight.
 - b) Ensure that the lid of cargo basket is closed and secured.
 - c) Ensure the basket is locked in position on the beams. Pull up on the forward and aft end of the basket to check.

CAUTION

It is possible to exceed the lateral centre of gravity limits of the rotorcraft under some loading conditions. Pilots must ensure that lateral C of G is within limits when loading the basket.

III EMERGENCY PROCEDURES

No change from basic Approved Flight Manual.

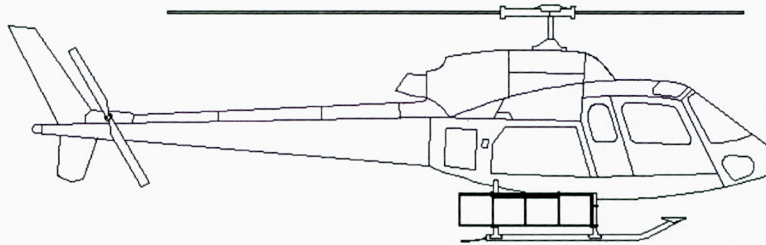
IV PERFORMANCE

1. Cruise performance and range will be reduced by approximately 8 percent with the Cargo Basket Installed.
2. AEO climb performance will be reduced by up to 150 fpm.

V WEIGHT AND BALANCE

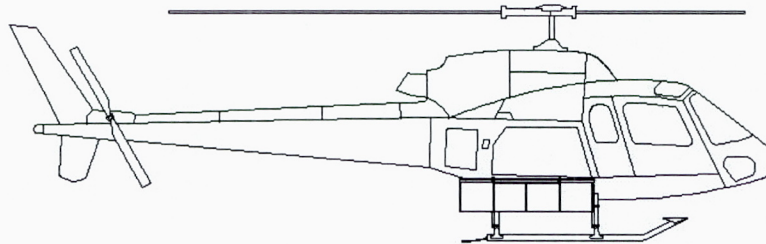
This section contains weight and balance information for cargo basket models 76401, 77601, 77602, 78401 and 78402. Each cargo basket model has multiple configurations. Refer to the weight and balance information applicable to basket model and configuration installed.

1. **MODEL 76401.** The following weight and balance is for the cargo basket installed in accordance with drawing 76401.



Quick Release Cargo Basket: Configuration 76401-01 (Low Mounted)

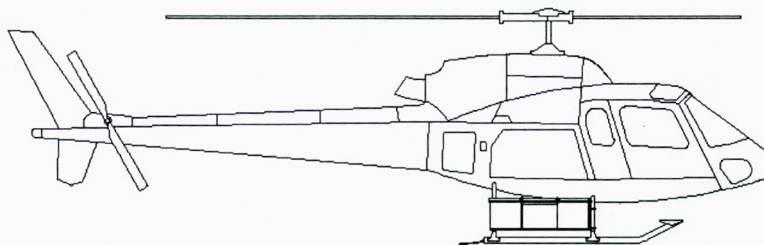
Item	Weight	Longitudinal		Lateral	
		Arm	Moment	Arm	Moment
76401-01 Basket Only ¹	45.0 lb	144.9 in	6520.5 in*lb	+/- 48.6 in	+/- 2187.5 in*lb
	20.4 kg	3680.5 mm	74941.5 mm*kg	+/- 1234.7 mm	+/- 25 140.8 mm*kg
Cargo ² (MAX)	200 lb	144.9 in	28 980 in*lb	+/- 48.6 in	+/- 9722 in*lb
	90.5 kg	3680.5 mm	333073.3 mm*kg	+/- 1234.7 mm	+/- 111 737.0 mm*kg



Quick Release Cargo Basket: Configuration 76401-02 (High Mounted)

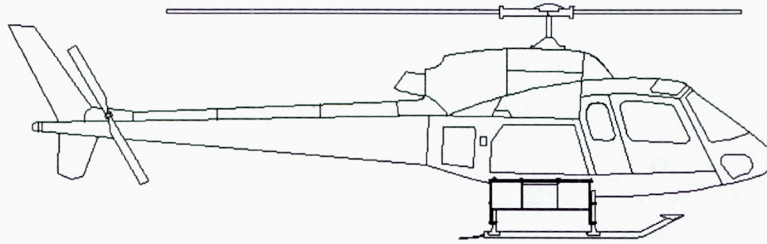
Item	Weight	Longitudinal		Lateral	
		Arm	Moment	Arm	Moment
76401-02 Basket Only ¹	45.0 lb	144.9 in	6520.5 in*lb	+/- 46.3 in	+/- 2084.9 in*lb
	20.4 kg	3680.5 mm	74 941.5 mm*kg	+/- 1176.8 mm	+/- 23 961.6 mm*kg
Cargo ² (MAX)	200 lb	144.9 in	28980 in*lb	+/- 46.3 in	+/- 9266.0 in*lb
	90.5 kg	3680.5 mm	333073.3 mm*kg	+/- 1176.8 mm	+/- 106 496.1 mm*kg

2. **MODEL 77601.** The following weight and balance is for the cargo basket installed in accordance with drawing 77601.



Quick Release Cargo Basket: Configuration 77601-01 (Low mounted)

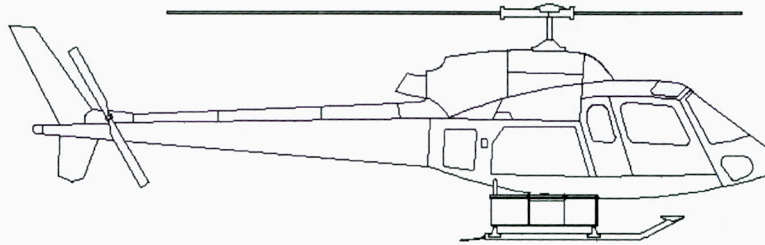
Item	Weight	Longitudinal		Lateral	
		Arm	Moment	Arm	Moment
77601-01 Basket Only ¹	35.0 lb	135.7 in	4749.5 in*lb	+/- 49.2 in	+/- 1723.4 in*lb
	15.8 kg	3446.8 mm	54 587.0 mm*kg	+/- 1250.7 mm	+/- 19 807.4 mm*kg
Cargo ² (MAX)	300 lb	135.7 in	40710.0 in*lb	+/- 49.2 in	+/- 14760.0 in*lb
	135.7 kg	3446.8 mm	467730.8 mm*kg	+/- 1250.7 mm	+/- 169720.0 mm*kg



Quick Release Cargo Basket: Configuration 77601-02 (High mounted)

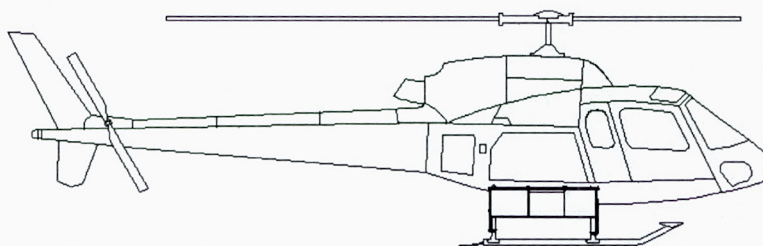
Item	Weight	Longitudinal		Lateral	
		Arm	Moment	Arm	Moment
77601-02 Basket Only ¹	35.0 lb	135.7 in	4749.5 in*lb	+/- 47.0 in	+/- 1643.6 in*lb
	15.8 kg	3446.8 mm	54 587.0 mm*kg	+/- 1192.8 mm	+/- 18 890.2 mm*kg
Cargo ² (MAX)	300 lb	135.7 in	40710.0 in*lb	+/- 47.0 in	+/- 14100.0 in*lb
	135.7 kg	3446.8 mm	467730.8 mm*kg	+/- 1192.8 mm	+/- 161863.0 mm*kg

3. **MODEL 77602.** The following weight and balance is for the cargo basket installed in accordance with drawing 77602.



Quick Release Cargo Basket: Configuration 77602-01 (Low mounted)

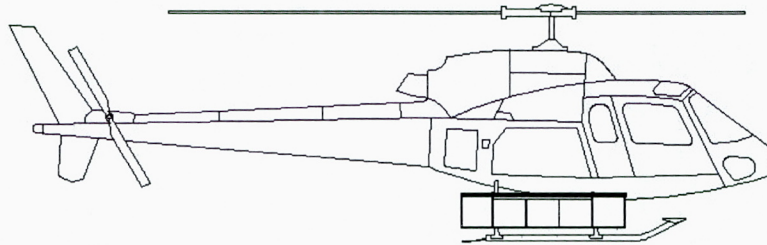
Item	Weight	Longitudinal		Lateral	
		Arm	Moment	Arm	Moment
77602-01 Basket Only ¹	36.2 lb	133.6 in	4836.3 in*lb	+/- 49.2 in	+/- 1781.0 in*lb
	16.4 kg	3393.4 mm	55 584.9 mm*kg	+/- 1249.7 mm	+/- 20 469.9 mm*kg
Cargo ² (MAX)	300 lb	133.6 in	40080.0 in*lb	+/- 49.2 in	+/- 14760.0 in*lb
	135.7 kg	3393.4 mm	460484.4 mm*kg	+/- 1249.7 mm	+/- 169584.3 mm*kg



Quick Release Cargo Basket: Configuration 77602-02 (High mounted)

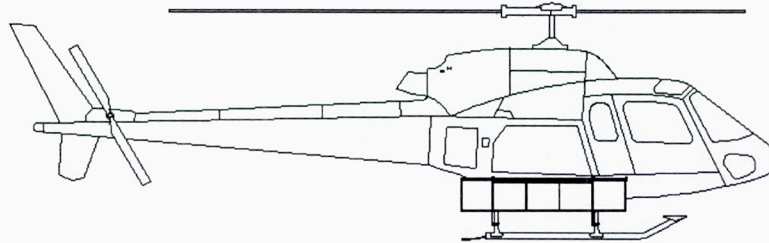
Item	Weight	Longitudinal		Lateral	
		Arm	Moment	Arm	Moment
77602-02 Basket Only ¹	36.2 lb	133.6 in	4836.3 in*lb	+/- 47.0 in	+/- 1700.0 in*lb
	16.4 kg	3393.4 mm	55 584.9 mm*kg	+/- 1192.8 mm	+/- 19 537.9 mm*kg
Cargo ² (MAX)	300 lb	133.6 in	40080.0 in*lb	+/- 47.0 in	+/- 14100.0 in*lb
	135.7 kg	3393.4 mm	460484.4 mm*kg	+/- 1192.8 mm	+/- 161863.0 mm*kg

4. **MODEL 78401.** The following weight and balance is for the cargo basket installed in accordance with drawing 78401.



Quick Release Cargo Basket: Configuration 78401-01 (Low Mounted)

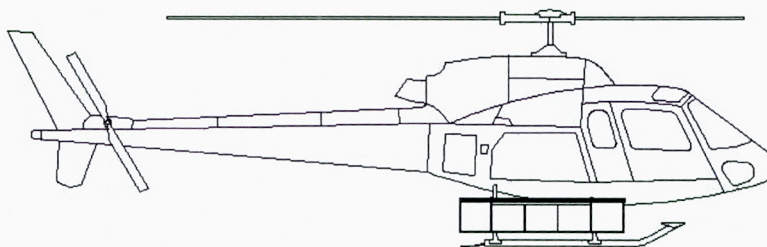
Item	Weight	Longitudinal		Lateral	
		Arm	Moment	Arm	Moment
78401-01 Basket Only ¹	55.0 lb	135.7 in	7463.5 in*lb	+/- 48.4 in	+/- 2659.8 in*lb
	24.9 kg	3446.8 mm	85 779.6 mm*kg	+/- 1228.3 mm	+/- 30 569.6 mm*kg
Cargo ² (MAX)	200 lb	135.7 in	27 140.0 in*lb	+/- 48.4 in	+/- 9672.0 in*lb
	90.5 kg	3446.8 mm	311 925.8 mm*kg	+/- 1228.3 mm	+/- 111 162.4 mm*kg



Quick Release Cargo Basket: Configuration 78401-02 (High Mounted)

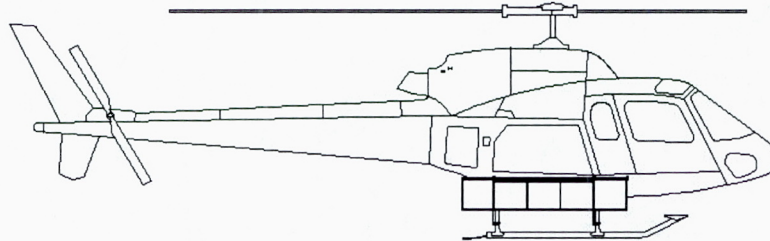
Item	Weight	Longitudinal		Lateral	
		Arm	Moment	Arm	Moment
78401-02 Basket Only ¹	55.0 lb	135.7 in	7463.5 in*lb	+/- 46.1 in	+/- 2534.4 in*lb
	24.9 kg	3446.8 mm	85 779.6 mm*kg	+/- 1170.4 mm	+/- 29 128.4 mm*kg
Cargo ² (MAX)	200 lb	135.7 in	27 140.0 in*lb	+/- 46.1 in	+/- 9216.0 in*lb
	90.5 kg	3446.8 mm	311 925.8 mm*kg	+/- 1170.4 mm	+/- 105 921.4 mm*kg

5. **MODEL 78402.** The following weight and balance is for the cargo basket installed in accordance with drawing 78402.



Quick Release Cargo Basket: Configuration 78402-01 (Low Mounted)

Item	Weight	Longitudinal		Lateral	
		Arm	Moment	Arm	Moment
78402-01 Basket Only ¹	60.0 lb	135.7 in	8142.0 in*lb	+/- 48.4 in	+/- 2901.6 in*lb
	27.1 kg	3446.8 mm	93 577.7 mm*kg	+/- 1228.3 mm	+/- 33 348.7 mm*kg
Cargo ² (MAX)	200 lb	135.7 in	35 850 in*lb	+/- 48.4 in	+/- 18 660 in*lb
	90.5 kg	3446.8 mm	27 140.0 mm*kg	+/- 1228.3 mm	+/- 111 162.4 mm*kg



Quick Release Cargo Basket: Configuration 78402-02 (High Mounted)

Item	Weight	Longitudinal		Lateral	
		Arm	Moment	Arm	Moment
78402-02 Basket Only ¹	60.0 lb	135.7 in	8142.0 in*lb	+/- 46.1 in	+/- 2764.8 in*lb
	27.1 kg	3446.8 mm	93 577.7 mm*kg	+/- 1170.4 mm	+/- 31 776.4 mm*kg
Cargo ² (MAX)	200 lb	135.7 in	27 140.0 in*lb	+/- 46.1 in	+/- 9216.0 in*lb
	90.5 kg	3446.8 mm	311 925.8 mm*kg	+/- 1170.4 mm	+/- 105 921.4 mm*kg

¹ Weight and balance is for Cargo Basket only. Mounting beams are not included since they should have been included in the basic rotorcraft weight and balance at time of initial installation.

² Longitudinal and Lateral moment arms are given only for the center of the Cargo Basket. Due to the length of the basket, some loading arrangements may require that actual moment arms be measured, to determine the correct moments about the center of gravity.

CAUTION:

It is possible to exceed lateral CG limits in some configurations.

VI INSTALLATION / REMOVAL INSTRUCTIONS

The beams are installed in accordance with 78601. The basket is installed in accordance with drawing 76401, 77601 or 78401, as applicable. Removal of the basket leaving the beams in place is an approved configuration for flight. Logbook entry indicating installation or removal of basket and which weight and balance amendment is in effect is required when basket is installed or removed.

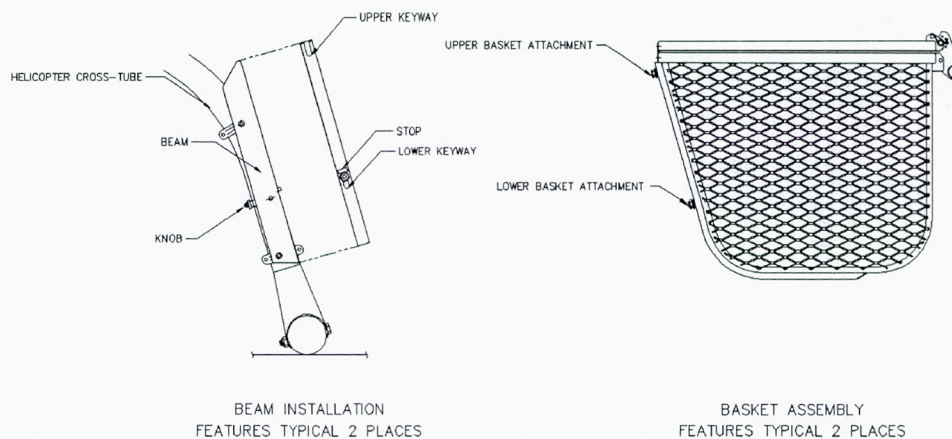


Figure 1 – Basket Attachment Features (Low beam installation shown. Beam attachment features typical for low and high beam installations)

1. Installation - Refer to Figure 1 and Figure 2.
 - a) Set basket upper attachment into upper keyway in forward and aft beams.
 - b) At forward attachment hoop, lift basket until lower attachment fitting hits stop.
 - c) Push fitting into keyway and slide basket down until locked.
 - d) Repeat step a,b and c for aft attachment hoop.

2. Removal - Refer to Figure 1 and Figure 2.

- a) Pull knob at bottom end of forward beam and lift basket until lower attachment fitting is free of keyway. Keep upper basket attachment in keyway on beam.
- b) Pull knob at bottom end of aft beam and lift basket until lower attachment fitting is free of keyway. Keep upper basket attachment in keyway on beam.
- c) Lift basket until upper attachments are out of keyways on both beams and remove basket from helicopter

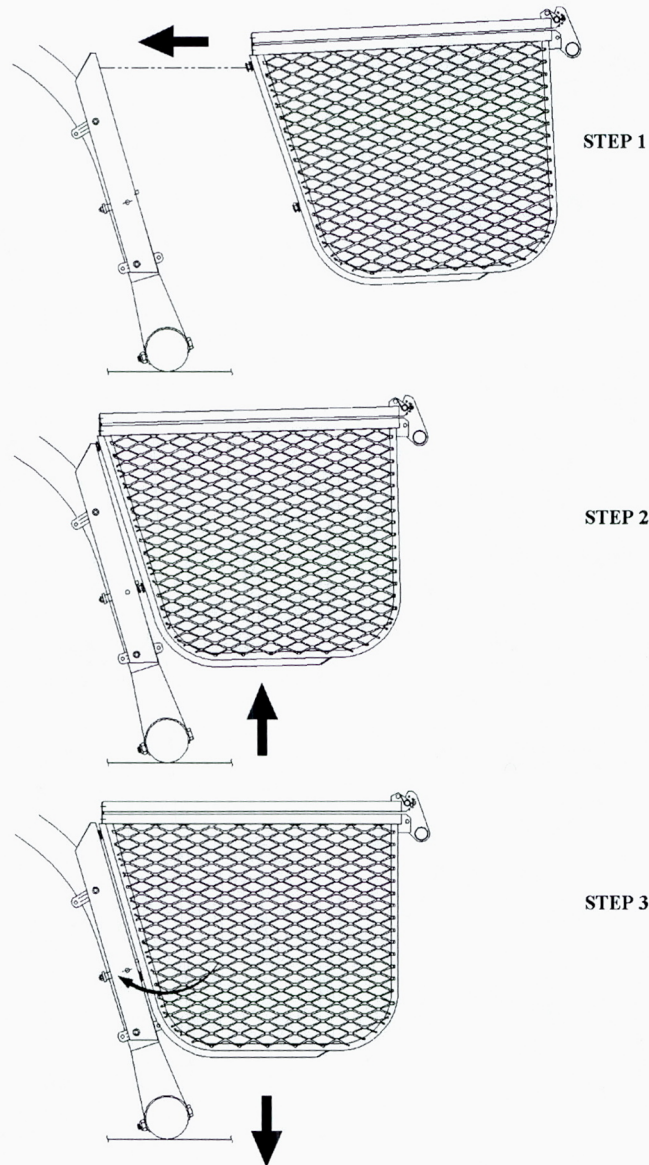


Figure 2 – Basket Attachment Steps (Low basket installation shown.
Installation instructions typical for low and high basket installation).

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

H9EU
Revision 17
Eurocopter France
AS350C
AS350D
AS350D1
AS350B
AS350B1
AS350B2
AS350BA
AS350B3
EC130 B4
February 15, 2007

TYPE CERTIFICATE DATA SHEET NO. H9EU

This data sheet which is a part of Type Certificate No. H9EU prescribes conditions and limitations under which the product for which the Type Certificate was issued meets the airworthiness requirements of the Federal Aviation Regulations.

Type Certificate Holder.

EUROCOPTER FRANCE
Aéroport International Marseille Provence
13725 - Marignane - Cedex
France

I. Model AS-350C "ASTAR" (Normal Category) Helicopter, approved December 21, 1977.

Engine.

1. Lycoming LTS 101 600A with Bendix power turbine governor
Lycoming P/N 4.301.101.04

Fuel.

- Normal fuels: Kerosene, MIL-T-5624 (JP5); ASTM D1655 jet A and A1
- Wide Cut: MIL-T-5624 (JP4); STM D1655 Jet B
- Emergency Fuel:
(Maximum viscosity: 12 centistokes (See corresponding limitations in
Lycoming installation manual under "Installation Instructions").

Oil.

- Automotive Diesel Fuel: ASTM D975 (N° 2D) or lighter
 - Synthetic oil (5 Cst) MIL.L.23699
 - Synthetic oil (3 Cst) MIL.L.7808
- Mixing of these oils are not permitted.

Engine Limits.

- Power Ratings (Sea Level, ISA)
 - Takeoff (5 mn) 592 shp.
 - Max. Continuous 505 shp.
- Gas Generator Speeds
 - Takeoff (5 mn) 48,825 rpm (102%)
 - Max. Continuous 48,060 rpm (100.4%)
 - Transient 49,685 rpm (103.8%)
- Engine Gear Box Limitations
 - Takeoff 592 shp.
 - Max. Continuous 505 shp.

Page No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Rev. No.	14	13	13	13	13	8	7	14	13	13	15	17	17	13		16

Engine Limits. (Cont'd)

- Exhaust Gas Temperature (T4)
 - Takeoff 706°C
 - Max. Continuous 732°C
 - Transient 843°C
 - Starting Max.* 899°C

* Time Limit 12 seconds above 799°C

Transmission Limits.

	<u>TORQUE</u>	<u>SHP.</u>	<u>KW.</u>
Maximum takeoff power (5 mn)	101%	531	396
Maximum continuous	101%	531	396

Helicopter Limits.

Maximum takeoff (5 mn)	101%	531	396
Maximum continuous	96%	505	377

Maximum Weight.

4300 lb. (see NOTE 6)

 II. Model AS-350D "ASTAR" (Normal Category) Helicopter, approved July 6, 1978.

Same as Model AS-350C except for more powerful LTS 101 600A2 engine.

Engine.

1. Lycoming LTS 101-600A-2
 - Normal Fuels: Kerosene; MIL-T-5624 (JP5); ASTM D1655 Jet A and A1
 - Wide Cut: MIL-T-5624 (JP4); ASTM D1655 Jet B
 - Emergency Fuel:
 - Automotive Diesel Fuel: ASTM D975 (N° 2D) of lighter.
 - Synthetic oil (5 Cst) MIL.L.23699
 - Synthetic oil (3 Cst) MIL.L.7808

Mixing of these oils is not permitted.

Engine Limits.

- Power Ratings (Sea Level, ISA)
 - Takeoff (5 min.) 615 shp.
 - Max. Continuous 590 shp.
- Gas Generator Speeds
 - Takeoff (5 mn) 49,638 rpm
 - Max. Continuous 49,159 rpm
 - Transient 50,548 rpm
- Exhaust Gas Temperature (T4)
 - Takeoff 771°C
 - Max. Continuous 760°C
 - Transient Max. * 843°C
 - Starting Max. * 899°C

* Time limit 12 seconds above 818°C

Transmission Limits.

	<u>TORQUE</u>	<u>SHP</u>	<u>KW</u>
Maximum takeoff power (5 min)	101%	531	396
Maximum Continuous	101%	531	396

Helicopter Limits.

- Torque : Same as transmission limits
- Other Limits : Same as engine limits except for:

Max. continuous gas generator speed 48,930 r.p.m. (102.2%)

Max. continuous gas temperature 744°C

Maximum Weight.

4300 lb (See NOTE 6).

 III. Model AS-350D1 "ASTAR" (Normal Category) Helicopter, approved August 4, 1978.

Same as Model AS 350D except for maximum weight.

Maximum Weight. 4000 lb (See NOTE 5)

 IV. Model AS-350B "ECUREUIL" (Normal Category) Helicopter, approved November 9, 1978.

Engine. 1 TURBOMECA Arriel 1B

Fuel.

- Normal Fuels: Kerosene; MIL-T-83133; ASTM D1655 Jet A1, Jet A
- Wide Cut (JP4), MIL-T-5624; ASTM D1655 Jet B
- High flash point (JP 5); MIL-T-5624
- Emergency Fuel See NOTE

Oil.

- Synthetic oil (5 Cst) MIL.L.23699
- Synthetic oil (3 Cst) MIL.L.7808
- Synthetic oil (3 Cst)
- Synthetic oil (3.9 Cst) Aeroshell Turbine Oil 390

Mixing of these oils is not permitted.

Engine Limits.

- Power Ratings (Sea Level, ISA)
 - Takeoff (5 min) 641 shp.
 - Max. Continuous 590 shp.
- Gas Generator Speeds (Sea Level), ISA
 - Takeoff 51,800 rpm (100%)
 - Max. Continuous 50,750 rpm (98%)
 - Transient 54,400 rpm (105%)
- Engine Gear Box Limitations
 - Max. torque stabilized 109% (100% corresponds to 641 shp at 6,000 rpm power shaft speed)
- Exhaust Gas Temperature (T4)
 - Takeoff 810°C
 - Max. Continuous 775°C
 - Starting max. 840°C

<u>Transmission Limits.</u>	<u>TORQUE</u>	<u>SHp</u>	<u>KW</u>
Maximum takeoff power (5 min)	83%	531	396
Maximum continuous	83%	531	396

<u>Helicopter Limits.</u>			
Maximum takeoff (5 min)	83%	531	396
Maximum continuous	83%	531	396

Maximum Weight. 4300 lb (see NOTE 6)

 V. Model AS 350B1 "ECUREUIL" (Normal Category) Helicopter, approved February 13, 1987.

Similar to AS 350B except Turbomeca Arriel 1D engine, main and tail rotors as AS 355F1, maximum weight, other changes.

Engine. 1 TURBOMECA ARRIEL 1D.

Fuel. Refer to Flight Manual AS 350B1 for approved and additive specification.

Oil. Refer to Flight Manual AS 350B1 for approved and additive specification.

Engine Limits.

- Power Ratings (Sea Level, ISA)

Takeoff (5 min)	684 shp.
Max. Continuous	603 shp.
- Gas Generator Speeds (Sea Level, ISA)

Takeoff	52,215	(100.8%)
Max. Continuous	50,764	(98%)
Transient	54,650	(105.5%)
- Engine Gear Box Limitations
Max. torque stabilized 109.2% (100% corresponds to 641 shp at 6000 rpm power shaft speed)
- Exhaust Gas Temperature (T4)

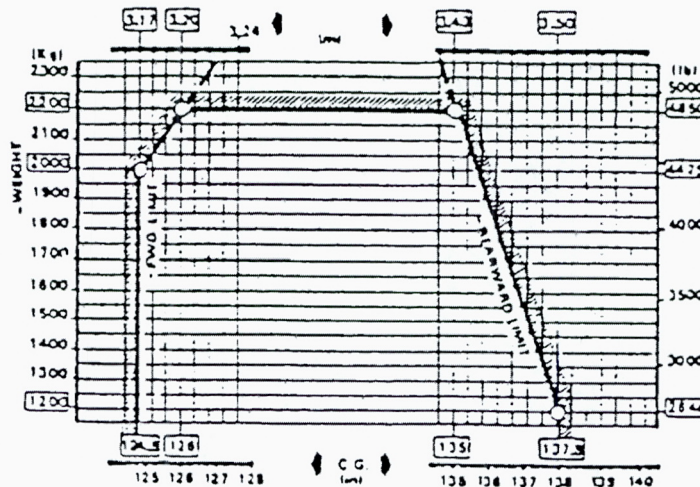
Takeoff	845°C
Max. Continuous	795°C
Starting Max.	865°C

Helicopter Limits.

	<u>TORQUE</u>	<u>KW</u>
Maximum torque = IAS 40 knots or higher	94%	450
IAS below 40 knots 100%	478	

Maximum Weight.

4850 lb (See NOTE 6)

C.G. Range.LongitudinalLateral

Right 5.51 in

Left 7.08 in

Rotor Speeds.In autorotation

Maximum 430 rpm

Minimum 320 rpm

In power-on flight

390 + 4 rpm

- 5 rpm

Rotor Low Speed Warning.

Aural at 360 rpm.

Airspeed Limits.

Never exceed speed V_{NE} power on:
155 Kt at Zero pressure altitude

Never exceed speed V_{NE} power-off:
125 Kt at Zero pressure altitude

See Rotorcraft Flight Manual for decrease of these values with altitude and temperature.

VI. Model AS 350B2 "ECUREUIL" (Normal Category) Helicopter, approved June 8, 1990.

Similar as to AS350B1 except Turbomeca ARRIEL 1D1 engine, maximum weight, other changes.

Engine.

1 TURBOMECA ARRIEL 1D1

Fuel.

Refer to Flight Manual AS 350B2 for approved and additive specification.

Oil.

Refer to Flight Manual AS 350B2 for approved and additive specification.

Engine Limits.

- Power Ratings (Sea Level, ISA)

Takeoff (5 min) 712 shp.

Max. Continuous 625 shp.

- Gas Generator Speeds (Sea Level, ISA)

Takeoff 52,784 (101.9%)

Max. Continuous 50,764 (98%)

Transient 54,650 (105.5%)

- Engine Gear Box Limitations

Max. torque stabilized 109.2% (100% corresponds to 641 shp at 6000 rpm
power shaft speed)

- Exhaust Gas Temperature (T4)

Takeoff 845°C

Max. Continuous 795°C

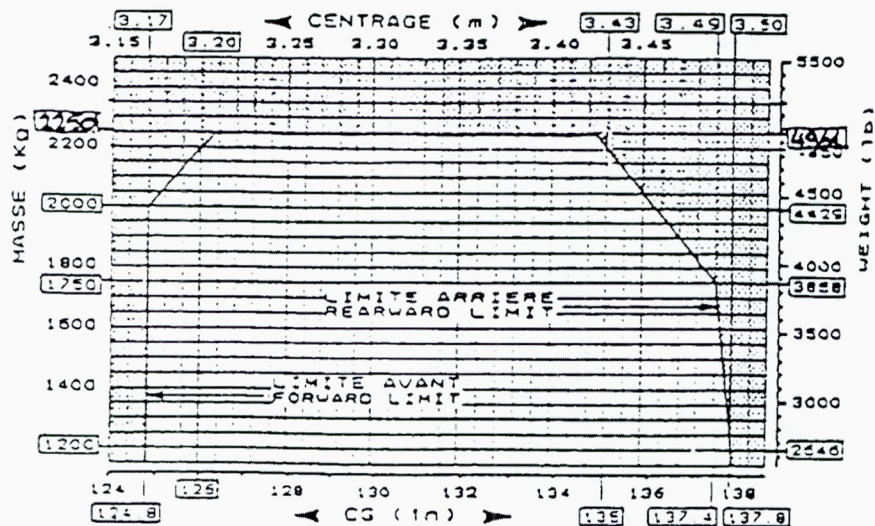
Starting Max. 865°C

Helicopter Limits.

	<u>TORQUE</u>	<u>SHP</u>
Maximum torque = IAS 40 knots or higher	94%	
IAS below 40 knots 100%		641

Maximum Weight.

4961 lb (See NOTE 6)

C.G. Range.LongitudinalLateral

Right 5.51 in

Left 7.08 in

Rotor Speeds.In autorotation

Maximum 430 rpm

Minimum 320 rpm

In Power-on flight

390 + 4 rpm

- 5 rpm

Rotor Speed Warning.

Aural at 360 rpm and 410 rpm

Airspeed Limits.Never exceed speed V_{NE} power on:

155 Kt at zero pressure altitude

Never exceed speed V_{NE} power off:

125 Kt at zero pressure altitude

See Rotorcraft Flight Manual for decrease of these values with altitude and temperature.

VII. Model AS 350BA "ECUREUIL" (Normal Category) Helicopter, approved March 11, 1992.

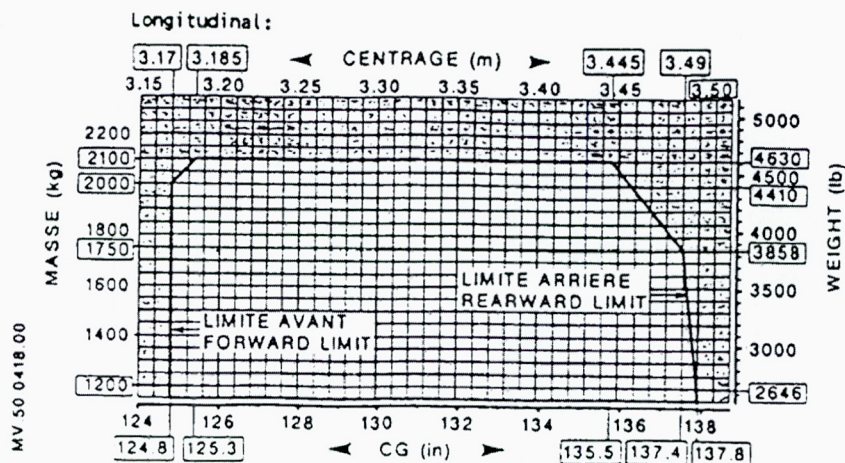
Same as Model AS 350B except for 355 type main rotor blades.

Other Changes.

Helicopter Limits	Vi (I.A.S.)	Torque	Kw	RPM
Maximum torque limit	<40 Kt	88%		
Maximum continuous torque	>40 Kt	83%	396	386
Reference		100%	478	386

Maximum Weight.

4630 lb (See NOTE 6).

C.G. Range.LongitudinalLateral:

Right Limit: 5.51 in.

Left Limit: 7.08 in.

Rotor Speeds.

The same as 350B1.

Rotor Low Speed Warning.

The same as AS350B1.

Airspeed Limits.

The same as AS350B1. See Rotorcraft Flight Manual for decrease of the values with altitude and temperature.

Versions 350B, C, D and D1 Common ParticularsRotor Speeds.In Autorotation

Maximum 424 rpm

Minimum 320 rpm

In power-on Flight

385 + 1 rpm

- 5 rpm

Rotor Low-Speed Warning.

Aural at - 335 rpm (See NOTE 8)

Airspeed Limits.

Never-exceed-speed: 147 kt from S.L. to 1000 feet, then decreasing with altitude 3.5 kt for each 1000 feet density altitude above 1000 feet. For operations below -30°C ambient temperature, decrease above V_{NE} schedule by 10 kts.

C.G. Range.Fwd LimitLongitudinal

124.8 in.

Aft Limit

139.7 in. to 2,865 lb.

135.0 in. to 4,190 lb.

Linear variation between points shown.

135.0 in. from 4,190 lb. to 4,300 lb.

Lateral

Right 3.14 in.

Left 5.90 in.

VIII. Model AS 350B3 "ECUREUIL" (Normal Category) Helicopter, approved May 7, 1998.

Similar as to AS350B2 except Turbomeca ARRIEL 2B or 2B1 engine with FADEC

<u>Engine.</u>	1 TURBOMECA ARIEL 2B, or 1 TURBOMECA ARIEL 2B1
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Fuel. Refer to Flight Manual AS 350B3 for approved and additive specification.

Oil. Refer to Flight Manual AS 350B3 for approved and additive specification.

<u>Engine Limits (Ariel 2B or 2B1).</u>	- Power Ratings (Sea Level, ISA)		
	Takeoff (5 min)	747 shp.	
	Max. Continuous	728 shp.	
	- Gas Generator Speeds (Sea Level, ISA)		
	Takeoff	52,756	(101.2%)
	Max. Continuous	50,672	(97.2%)
	- Engine Gear Box Limitations		
	Refer to Engine TCDS E00054EN		
	- Exhaust Gas Temperature (T4)		
	Takeoff	915°C	
	Max. Continuous	849°C	
	Starting Max.	865°C	

<u>Helicopter Limits.</u>		<u>TORQUE</u>
	Maximum torque = IAS 40 knots or higher	84%
	IAS below 40 knots	100%

Maximum Weight. 4961 lb (See NOTE 6)

C.G. Range. Longitudinal
Same as AS350B2

<u>Lateral</u>	
Right	5.51 in
Left	7.08 in

<u>Rotor Speeds.</u>	<u>In autorotation</u>	
	Maximum 430 rpm	
	Minimum 320 rpm	
	<u>In Power-on flight: With Arriel 2B</u>	390 + 4 rpm
		- 5 rpm
	With Arriel 2B1	390 +15 rpm
		-15 rpm

Rotor Speed Warning. Aural at 360 rpm and 410 rpm

Airspeed Limits.

Never exceed speed V_{NE} power on:
155 Kt at zero pressure altitude

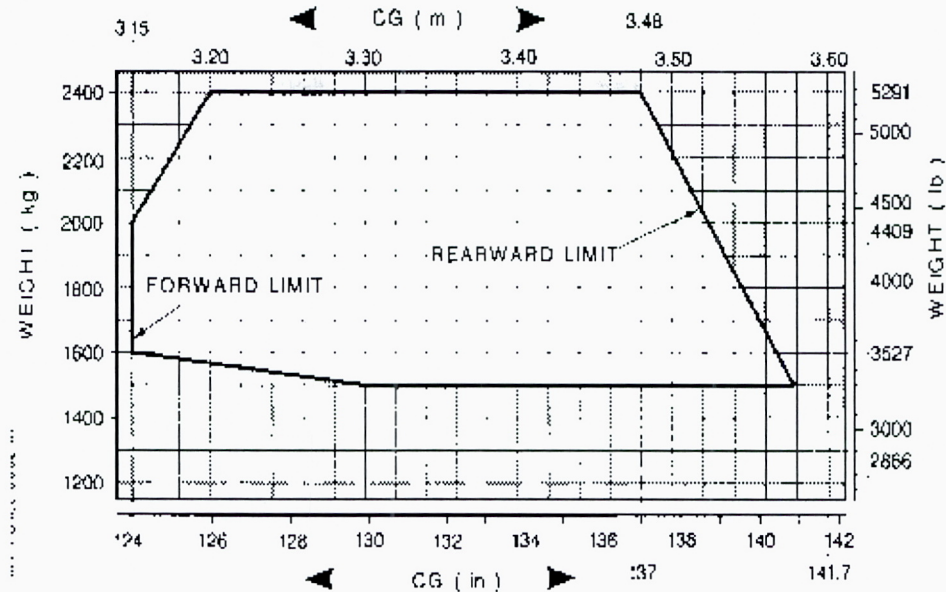
Never exceed speed V_{NE} power off:
125 Kt at zero pressure altitude
See Rotorcraft Flight Manual for decrease of these values with altitude and temperature.

Serial Numbers. S/N 2968 and S/N's 3063 and subsequent

IX. Model EC 130 B4 (Normal Category) Helicopter, approved December 21, 2000.

Similar as to AS350B3 except a gross weight increase to 2400 kg, enlarged fuselage structure utilizing some standard EC 120B components, and an EC 135 type fenestron anti-torque system.

<u>Engine</u>	1 TURBOMECA ARRIEL 2B1																		
<u>Fuel</u>	Refer to Flight Manual EC 130B4 for approved fuels and additive specification.																		
<u>Oil</u>	Refer to Flight Manual EC 130B4 for approved oils and additive specification.																		
<u>Engine Limits</u>	<p>- Power Ratings (Sea Level, ISA)</p> <table> <tr> <td>Takeoff (5 min)</td><td>747 shp.</td></tr> <tr> <td>Max. Continuous</td><td>728 shp.</td></tr> </table> <p>- Gas Generator Speeds (Sea Level, ISA)</p> <table> <tr> <td>Takeoff</td><td>101.1%</td></tr> <tr> <td>Max. Continuous</td><td>97.1%</td></tr> <tr> <td>Maximum transient</td><td>102.3%</td></tr> </table> <p>(note 100%= 52110 RPM)</p> <p>- Engine Gear Box Limitations Refer to Engine TCDS E00054EN</p> <p>- Exhaust Gas Temperature (T4)</p> <table> <tr> <td>Takeoff (5 min.)</td><td>915°C</td></tr> <tr> <td>Max. Continuous</td><td>849°C</td></tr> <tr> <td>Starting transient (10 sec)</td><td>865°C</td></tr> <tr> <td>Continuous starting</td><td>750°C</td></tr> </table>	Takeoff (5 min)	747 shp.	Max. Continuous	728 shp.	Takeoff	101.1%	Max. Continuous	97.1%	Maximum transient	102.3%	Takeoff (5 min.)	915°C	Max. Continuous	849°C	Starting transient (10 sec)	865°C	Continuous starting	750°C
Takeoff (5 min)	747 shp.																		
Max. Continuous	728 shp.																		
Takeoff	101.1%																		
Max. Continuous	97.1%																		
Maximum transient	102.3%																		
Takeoff (5 min.)	915°C																		
Max. Continuous	849°C																		
Starting transient (10 sec)	865°C																		
Continuous starting	750°C																		
<u>Transmission Limits</u>	<p>Maximum takeoff torque – 100% Maximum continuous torque – 92.7% Maximum Transient (5 second) – 104%</p> <p>(100% based on 536 Kw at 6000 engine RPM and 386 main rotor RPM)</p>																		
<u>Maximum Weight</u>	2400 Kg (5291 lbs)																		
<u>Minimum Crew</u>	1 pilot in left or right seat																		
<u>Maximum Passengers</u>	6 (2 in front, four in rear)																		
<u>Maximum Baggage</u>	<p>Right Baggage Compartment : 287 lb. (max distribution 62.5 lb/sq ft) Left Baggage Compartment : 342 lb. (max distribution 62.5 lb/sq ft) Rear Baggage Compartment : 176 lb. (max distribution 30 lb/sq ft) Main Cabin (on rear floor) : 1091 lb. (max distribution 62.5 lb/sq ft) (on LH fwd floor) : 893 lb. (max distribution 62.5 lb/sq ft)</p>																		
<u>Fuel Capacity</u>	<p>Total : 142.7 U.S. Gallons Usable : 142.3 U.S. Gallons</p>																		
<u>Oil Capacity</u>	<p>Engine Tank Max. 1.64 U.S. Gallons MGB Max. 1.93 U.S. Gallons (includes filter) TGB Max. 0.13 U.S. Gallons</p>																		
<u>Rotor Blades and Control Movements</u>	For rigging information, refer to the EC 130B4 Maintenance Manual.																		

C.G. RangeLongitudinalLateral

Right 0.10 m
Left 0.10 m

Datum

Longitudinal - 3.4 m (133.8 in) forward of main rotor head
Lateral - Symmetrical plane of the aircraft

Leveling Means

Mechanical floor

Rotor SpeedsIn autorotation

Maximum 430 rpm
Minimum 320 rpm

In Power-on flight

375 to 405 RPM

Rotor Speed Warning

Aural at 360 rpm and 410 rpm

Airspeed Limits

Never exceed speed V_{NE} power on:
155 Kt at sea level

Never exceed speed V_{NE} power off:
125 Kt at sea level

See Rotorcraft Flight Manual for decrease of these values with altitude and temperature.

Maximum Altitude

23,000 feet pressure altitude

Serial Numbers

S/N's 3358 and subsequent

DATA PERTINENT TO ALL MODELS EXCEPT EC 130B4

<u>Empty Weight CG Range.</u>	None
<u>Datum.</u>	Longitudinal : 133.8 in. forward of main rotor hub center. Lateral : Vertical plane passing longitudinally through main rotor hub center.
<u>Leveling Means.</u>	Transmission support platform
<u>Minimum Crew.</u>	1 pilot at 60.62 in. 350BA included.
<u>Maximum Passengers.</u>	(5) 4 at 98.42 in. 350BA included. 1 at 60.62 in.
<u>Maximum Baggage.</u>	Right Baggage Compartment : 220 lb. at 125.98 in. 350BA included Left Baggage Compartment : 264 lb. at 125.98 in. " Rear Baggage Compartment : 176 lb. at 181.10 in. " Main Cabin (on rear : 682 lb. at 88.58 in. " (on LH fwd. : 330 lb. at 61.02 in. "
<u>Fuel Capacity.</u>	Total : 143 U.S. Gallons at 136.8 in. Usable : 142.67 U.S. Gallons at 136.8 in. (post AMS 07.0289) For 350BA version AMS 07.0289 is applied. (See NOTE 1 for data on unusable fuel)
<u>Oil Capacity.</u>	Engine Tank Max. 1.37 U.S. Gallons at 144.76 in. for AS 350B, AS350BA and AS 350B1 1.00 U.S. Gallons at 144.76 in. for other models (See NOTE 1 for data on undrainable oil) MGB Max. 1.72 U.S. Gallons at 134.4 in. TGB Max. 0/08 U.S. Gallons at 379.5 in.
<u>Rotor Blades and Control Movements.</u>	For rigging information, refer to the appropriate AS-350 Maintenance Manual.
<u>Production Basis:</u>	Production Certificate No. 343CE . The manufacturer (American Eurocopter) is authorized to issue airworthiness certificates under 14 CFR 21.183 (a). NOTE: These models listed on the American Eurocopter Production Limitation Record are being produced under Licensing Agreement between Eurocopter of France and American Eurocopter, Columbus, Mississippi, dated March 2005.
<u>Serial Numbers Eligible.</u>	The French Government "Certificat de Navigabilite pour Exportation" endorsed as noted below under "Import Requirements" must be submitted for each individual aircraft for which application for FAA certification is made. For rotorcraft produced by American Eurocopter in Columbus, Mississippi: Model AS350B2 S/N 3951 and subsequent, and Model AS350B3 S/N 3995 and subsequent.
<u>Certification Basis.</u>	FAR 21.29 and FAR 27 effective February 1, 1965 plus Amendments 27-1 through 27-10, plus FAA Special Conditions No. 27-79-EU-23, dated August 13, 1977. Equivalent safety, in lieu of direct compliance, found with respect to FAR 27.1189, Shutoff Means. Equivalent Safety, in lieu of direct compliance, found with respect to FAR 27.923(b), Rotor drive system and control mechanism test for Model AS-350B1.

FAA Special Condition No. 27-001-SC for FADEC HIRF and Equivalent level of Safety found with respect to FAR 27.1549(b) for the Model AS350B3.

Type Certificate No. H9EU.

Date of application for Type Certificate: April 6, 1976.

EC 130B4 Certification Basis

FAR Part 21.29 and FAR Part 27 Amendment 27-1 through Amendment 27-32 except FAR 27.952 is not adopted.

FAR 36 Appendix H through Amendment 20

Special Condition 27-009-SC for HIRF

Equivalent Level of Safety Findings

- FAR 27.1549(b) Powerplant Instrument Markings
- FAR 27.1027(b)(2) Main Gearbox Oil Filter Bypass

The French Direction Generale de l'Aviation Civile (DGAC) originally type certificated this rotorcraft under its type certificate TC 84. The FAA validated this product under U.S. Type Certificate Number H9EU. Effective September 28, 2003, the European Aviation Safety Agency (EASA) began oversight of this product on behalf of the DGAC.

Import Requirements.

The FAA can issue a U.S. airworthiness certificate based on a National Aviation Authority (NAA) Export Certificate of Airworthiness (Export C of A) signed by a representative of the French Generale de l'Aviation Civile (DGAC) on behalf of the European Community.

The Export C of A should contain the following statement: "The aircraft covered by this certificate has been examined, tested, and found to comply with the type design approved under U.S. Type Certificate Number H9EU and to be in a condition for safe operation."

A U.S. Airworthiness Certificate may be issued on the basis of a certificate of airworthiness for export signed by a representative of the Centro Tecnico Aeroespacial (CTA), the Brazilian civil airworthiness authority which states in the English language:

"The helicopter covered by this certificate has been examined, tested, and found to conform to the Type design approved under FAA Type Certificate No. H9EU and to be in a condition for safe operation"

Major modifications to the imported aircraft must be FAA approved.
(See Notes 10 and 11)

Service Information.

Each of the documents listed below must state that it is approved by the European Aviation Safety Agency (EASA) or – for approvals made before September 28, 2003 – by the French Generale de l'Aviation Civile (DGAC). Any such documents are accepted by the FAA and are considered FAA approved.

- Service Bulletin,
- Structural repair manuals,
- Vendor manuals,
- Aircraft flight manuals, and
- Overhaul and maintenance manuals.

This applies only to the acceptance of the type design data.

Equipment.

The basic required equipment as prescribed in the applicable airworthiness regulations (See Certification Basis) must be installed in the helicopter for certification. Eurocopter France Report No. 350A.04.4320 lists required and optional equipment for the helicopter.

In addition, the following equipment is required:

DGAC-approved Rotorcraft Flight Manual identified as Code B, approved as follows:

For Model AS-350B	: Approved November 9, 1978.
For Model AS-350C	: Approved December 21, 1977, including Rev. No. 2 approved December 8, 1978.
For Model AS-350D	: Approved July 5, 1978.
For Model AS-350D1	: Approved July 4, 1978.
For Model AS-350B1	: Approved February 11, 1987. Rev. 0 plus rush Rev. 1A and 1B and specific pages marked B or later approved revisions.
For Model AS-350B2	: Approved June 8, 1990 - Rev. 0 plus Rev. 1 plus Sup 0 Rev. 2
For Model AS-350BA	: Approved March 11, 1992.
For Model AS-350B3	: Approved December 24, 1997 plus rapid Revision RR 1A for aircraft equipped with Arriel 2B engine or approved July 16, 2004 for aircraft equipped with Arriel 2B1 engine.
For Model EC 130B4	: Approved November 29, 2000 plus ITR 1A and ITR 1B dated May 17, 2001 (B code not applicable)

NOTES.

- NOTE 1. Current weight and balance report including loading instructions and list of equipment included in the certificated empty weight, must be provided for each helicopter at the time of original certification. The certificated empty weight and corresponding center of gravity location must include unusable fuel of 19.4 lb., at 136.8 in., and undrainable oil of 1.8 lb., at 171.0 in. For Models AS350B/C/D after embodiment of modification AMS 07.0289 and for Models AS350B1 and BA, the unusable fuel is 2.2 lb.
- In order to obtain the most consistent weight and balance results, all helicopters should be weighed on jackpoints rather than on wheels and floats. When changes are made to the helicopter which affect the weight and balance, refer to the Flight Manual Weight and Balance Appendix for instructions.
- NOTE 2. All placards indicated in the Rotorcraft Flight Manual must be installed in the appropriate location.
- NOTE 3. Information essential to the proper maintenance of the helicopter is contained in the manufacturer's AS-350 Maintenance Manual provided with each helicopter. Life-limited components and associated retirement times are presented in Chapter 5, Section CD 5.99, and must be replaced in accordance therewith.
- NOTE 4. For compliance with applicable powerplant ice protection requirements, the helicopter must be equipped during all operations with engine air inlet conforming with Eurocopter France Dwg. No. 350A58-1607 for AS 350B, B1, B2, B3 and BA and with Dwg. No. 350A58-1608 for all other models.
- NOTE 5. Except for difference in maximum certificated empty weight, the model AS 350D and AS 350D1 are identical to each other.
- NOTE 6. A. When operating at maximum weights above, 4,190 pounds DGAC-approved Rotorcraft Flight Manuals, identified as Code B, approved as follows, are required:
- 1) for Model AS-350B: Issue 1, amendment 3, approved May 10, 1979.
 - 2) for Model AS-350C: Issue 1, amendment 4, approved May 10, 1979.
 - 3) for Model AS-350D: Issue 1, amendment 1, approved May 10, 1979.
- B. For models AS-350B, AS-350C, AS-350D for cargo sling or cargo swing operations the maximum weight, including the external load, may be 4,630 pounds provided:
- 1) at least 330 pounds of the external load are releasable, and
 - 2) the rotorcraft is operated in accordance with the appropriate Rotorcraft Flight Manual in part A of this note and,
 - a) Eurocopter France Supplement No. 2 to that DGAC-approved Manual, dated May 10, 1979 for the cargo sling or,
 - b) Eurocopter France Supplement 2A to that DGAC-approved Manual, dated May 18, 1979 for the cargo swing.
- C. For AS 350B1 model for cargo sling or cargo swing operations the maximum weight including the external load, may be 5,402 pounds provided:
- 1) at least 552 pounds of the external load are releasable, and
 - 2) the rotorcraft is operated in accordance with the appropriate RFM and
 - a) Eurocopter France supplement 10-1 to that DGAC approved Manual, dated January 9, 1986 for the cargo swing or
 - b) Eurocopter France supplement 10-2 to that DGAC approved Manual, dated January 9, 1986 for the cargo sling.

D. For AS 350B2 model for cargo sling or cargo swing operations the maximum weight including the external load, may be 5,512 pounds provided:

- 1) at least 551 pounds of the external load are releasable, and
- 2) the rotorcraft is operated in accordance with the appropriate RFM and
 - a) Eurocopter France supplement 11 to that DGAC-approved Manual, dated April 26, 1989 for the cargo swing or,
 - b) Eurocopter France supplement 12 to that DGAC approved Manual, dated April 26, 1989 for the cargo sling.

E. For AS 350BA model for cargo sling or cargo swing operations the maximum weight including the external load may be 4961 lb.

- 1) at least 331 pounds of the external load are releasable and
- 2) the rotorcraft is operated in accordance with the appropriate RFM and
 - a) Eurocopter France supplement 11 to that DGAC approved Manual, dated November 26, 1991 for the cargo swing or
 - b) Eurocopter France supplement 12 to that DGAC approved Manual, dated November 26, 1991 for the cargo sling.

F. For AS 350B3 model for cargo sling or cargo swing operations the maximum weight including the external load may be 6173 lb.

- 1) at least 1212 pounds of the external load are releasable and
- 2) the rotorcraft is operated in accordance with the appropriate RFM and
 - a) Eurocopter France supplement 11 to that DGAC approved Manual, dated December 24, 1997 for the cargo swing or
 - b) Eurocopter France supplement 12 to that DGAC approved Manual, dated December 24, 1997 for the cargo sling.
 - c) Eurocopter France supplement 13 to that DGAC approved Manual, dated February 16, 1998 for the cargo swing.

NOTE 7.

Emergency fuels:

- A. Use of aviation gasoline MIL-G-5572, Grade 80/87; Grade 110/130 and Grade 115/145 is limited to 25 hours maximum within one overhaul period and should have 2% mineral lubricating oil added, if possible. In addition the use of Grade 115/145 is limited operations below 1500 feet pressure altitude.
- C. Use of automotive gasoline MIL-G-3056 is limited to a fuel temperature up to 30°C.

NOTE 8.

For AS 350B, the aural warning sounds when the rotor speed drops below:

335 rpm before embodiment of modification AMS 07.1891
360 rpm before embodiment of modification ASM 07.1891
For AS350BA, AMS 07.1891 is applied.

NOTE 9.

The model AS350B3 and EC 130B4 rotorcraft employs electronic engine controls, commonly named Full authority Digital Engine Controls (FADEC) and is recognized to be more susceptible to Electromagnetic Interference (EMI) than rotorcraft that have only manual (non-electronic) controls. (EMI may be the result of radiated or conducted interference.) For this reason modifications that add or change systems that have the potential for EMI, must either be qualified to a standard acceptable to the FAA or tested at the time of installation for interference to the FADEC. This type of testing must employ the particular FADEC's diagnostic techniques and external diagnostic techniques. The test procedure must be FAA approved.

Note 10

Helibras (Brazil) has signed with Eurocopter (France) a technical cooperation agreement contract to manufacture in Brazil the AS 350 BA, AS 350 B2 and AS 350 B3 models using kits produced by Eurocopter, in conformity to the DGAC France approved Type design. Helibras helicopters are produced under the Helibras Production Certificate, assembled and tested in accordance with procedures approved under the French Type design by Eurocopter and accepted by the Centro Tecnico Aeroespacial (CTA) under the terms and conditions of the Helibras Production Certificate.

Helicopter serial numbers produced by Helibras as the manufacturer are identified in Eurocopter document number L102 001, entitled "List of serial numbers of stage 2 helicopters produced by Helibras" referenced in both the French and the Brazilian Type Certificate Data Sheets (See Import Requirements).

Note 11

Helicopters with a model prefix of "HB" as in "HB 350 B" are not eligible for airworthiness certification in the U.S.

.....END.....

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Load 2391

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before 10:30 am / avant 10 h 30	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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before 7:00 am / avant 7 h	<input type="checkbox"/>	<input type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			Enter Urgent quote number Entrer le numéro de Soumission urgente.			Enter quote number in space above / Indiquer le numéro de devis dans l'espace ci-dessus.		

PIECES PIÈCES	DESCRIPTION OF ARTICLES AND SPECIAL MARKS DESCRIPTION DES ARTICLES ET MARQUES SPÉCIALES	NMFC Classification NMFC	CLASS CLASSE	DANGEROUS GOODS MARCHANDISES DANGEREUSES			WEIGHT (LBS) POIDS (LB)	FREIGHT CHARGES FRAIS DE TRANSPORT
2	CARGO BASKET 8' x 2' x 2'			CLASS CATÉGORIE	P.I.N. N.I.P.	PKG. GPP GROUPE D'EMBALLAGE	80 ea	SHIPPER TO CHECK À POINTER PAR L'EXPÉDITEUR
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								<input checked="" type="checkbox"/> COLLECT / PORT DÙ
								<input type="checkbox"/> THIRD PARTY / TIERS
								If not indicated, shipment will automatically move collect. Si aucune directive n'est donnée, l'expédition se fera à port dû.
								C.O.D. PAIEMENT À LA LIVRAISON AMOUNT / MONTANT \$
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								<input type="checkbox"/> COLLECT / PORT DÙ

DANGEROUS GOODS DOCUMENTS ATTACHED ☐ YES ☐ NO
LES DOCUMENTS DES MARCHANDISES DANGEREUSES ☐ OUI ☐ NON

EMERGENCY RESPONSE TELEPHONE NO. N° DE TEL D'INTERVENTION D'URGENCE	TYPE OF PLACARD TYPE DE PLAQUE DE DANGER	QUANTITY QUANTITÉ	EMERGENCY RESPONSE PLAN NO. N° DE PROGRAMME D'INTERVENTION D'URGENCE	DECLARED VALUATION: MAXIMUM LIABILITY OF CARRIER IS \$2.00 PER LB. UNLESS DECLARED VALUATION STATES OTHERWISE. AN EXCESS VALUATION CHARGE OF 2% WILL BE ASSESSED ON VALUATION IN EXCESS OF \$5.00 PER LB. À MOINS D'INDICATION CONTRAIRE DANS LA VALEUR DÉCLARÉE, LA RESPONSABILITÉ MAXIMALE DU TRANSPORTEUR EST DE 4.41 \$ PAR KILOGRAMME (2.00 \$ PAR LIVRE). DES FRAIS DE VALEUR EXCÉDENTAIRE DE 2 % SERONT CALCULÉS SUR LES VALEURS EXCÉDANT 11.00 \$ PAR KILOGRAMME (5.00 \$ PAR LIVRE).
DIMENSIONS 8' x 2' x 2'			TOTAL CUBIC FEET / NOMBRE TOTAL DE PIEDS CUBES 64	

NOTICE OF CLAIM: (a) No carrier is liable for loss, damage or delay to any goods under the Bill of Lading unless notice thereof setting out particulars of the origin, destination and date of shipment of the goods and the estimated amount claimed in respect of such loss, damage or delay is given in writing to the originating carrier or the delivering carrier within sixty (60) days after the delivery of the goods, or, in the case of failure to make delivery, within nine (9) months from the date of shipment. (b) The final statement of the claim must be filed within nine (9) months from the date of shipment together with a copy of the paid freight bill. (c) Carrier(s) are not liable for goods shipped at "SHIPPER'S RISK", "SHIPPER'S LOAD & COUNT" and/or if not properly packaged or crated. (d) The agreed value on glass and/or fragile goods, personal effects and/or used commodities does not exceed \$0.10 per pound, unless otherwise specified.

RECEIVED at the point of origin on the date specified, from the consignor mentioned herein, the property herein described, in apparent good order, except as noted (contents and conditions of contents of package unknown) marked, consigned and destined as indicated below, which the carrier agrees to carry and to deliver to the consignee at the said destination, on its own authorized route or otherwise to cause to be carried by another carrier on the route to said destination, subject to the rates and classification in effect on the date of shipment.

It is mutually agreed, as to each carrier of all or any of the goods over all or any portion of the route to destination, and as to each party of any time interested in all or any of the goods, that every service to be performed hereunder shall be subject to all the conditions not prohibited by law, whether printed or written, including conditions set aside by the standard bill of lading, in power at the date of issuing, which are hereby agreed by the consignor and accepted for himself and his assigns. The contract for the carriage of the goods listed in the bill of lading is governed by regulation in force in the jurisdiction at the time and place of shipment and is subject to the conditions set out in such regulations.

Debtor's Responsibility: The Carrier reserves the right to seek payment from the shipper on any balances owed where a Freight Forwarder, Broker, or Logistics Company is used to meet the terms of payment indicated.

AVIS DE RÉCLAMATION: (a) Le transporteur n'est responsable de pertes, de dommages ou de retards aux marchandises transportées qui sont décrites au connaissement, qu'à la condition qu'un avis écrit précisant l'origine des marchandises, leur destination, leur date d'expédition et le montant approximatif réclamé en réparation de la perte, des dommages ou du retard ne soit signifié au transporteur initial ou au transporteur de destination, dans les soixante (60) jours suivant la date de la livraison des marchandises ou dans les cas de non-livraison, dans un délai de neuf (9) mois suivant la date d'expédition. (b) La présentation de la réclamation finale accompagnée d'une preuve du paiement des frais de transport doit être soumise au transporteur dans un délai de neuf (9) mois suivant la date d'expédition. (c) Le ou les transporteurs n'assument aucune responsabilité pour les marchandises expédiées au « RISQUE DE L'EXPÉDITEUR », les « ENVOIS CHARGÉS ET VÉRIFIÉS PAR L'EXPÉDITEUR » et/ou les marchandises emballées ou mises en caisse de façon inappropriée. (d) Sauf indication contraire, la valeur agréée pour les marchandises en verre et/ou fragiles, les effets personnels et/ou les denrées usagées n'exécute pas 0.22 \$ par kilogramme (0.10 \$ par livre). RECU au point d'origine, à la date spécifiée et de l'expédition mentionnée aux présentes les marchandises ci-après décrites en bon état apparent (le contenu des colis et sa condition étant inconnus) marquées, consignées et destinées tel que ci-après mentionné, que le transporteur consent à transporter et à délivrer à leur consignataire au point de destination si ce point se trouve sur la route qu'il est autorisé à desservir, sinon à faire transporter et délivrer par un autre transporteur aux taux et à la classification en vigueur à la date de l'expédition.

Il est mutuellement convenu que chaque transporteur transportant lesdites marchandises en tout et en partie sur le parcours entier ou une portion quelconque de celui-ci jusqu'à destination et que tout intéressé à ladite expédition pour tout service à effectuer en vertu des présentes est sujet à toutes les conditions imprimées ou écrites non prohibées par la loi, incluant les conditions contenues au verso des présentes qui sont acceptées par l'expéditeur pour lui-même et ses ayants droits. Le contrat de transport des marchandises énumérées dans le connaissement est régi par les règlements en vigueur dans le territoire d'où l'envoi est effectué à la date de cet envoi, et est assujéti aux conditions stipulées dans ces règlements.

Responsabilité du débiteur: Le transporteur réserve le droit de percevoir tout solde dû auprès de l'expéditeur lorsqu'un transitaire, un courtier de transport ou une société de logistique omet de respecter les conditions de paiement indiquées.

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Type Certificate Data Sheet

Number: H-83

Issue No.: 18

Approval Date: Refer Below

Issue Date: July 12, 2007

This Data Sheet which is part of Type Certificate No. H-83 prescribes the conditions and limitations under which the product(s) for which the Type Certificate was granted meet(s) the standards of airworthiness required by the Canadian Aviation Regulations.

Type Certificate Holder:

Eurocopter France
Aéroport International Marseille Provence
13725 Marignane Cedex
France

Models

AS 350 B	AS 350 B1	AS 350 B2	AS 350 B3
AS 350 BA	AS 350 C	AS 350 D	AS 350 D1
EC 130 B4			

1. MODEL AS 350 C

The civil aviation authority of the country of design - DGAC has on August 1997 withdrawn the certification of this rotorcraft model. Accordingly, the Canadian type certificate is also being withdrawn effective August 1997.

2. MODEL AS 350 D (Normal Category) Approved March 1, 1979

Canadian Definition (see NOTE 3 & 4) DOT (Canada) Certification List of Mandatory Modifications for DOT Type Definition 350A.05.0027 Revision F dated 14/09/92*

Ensemble General Appareil SA 350 serie 350A-00-0000 Revision Bb dated 5/11/92*

*or latest approved revision.

Engine

1 Lycoming LTS 101 600A2 with Bendix power turbine governor
Lycoming P/N 4.301.101.04.

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Type Certificate Data Sheet

(Continuation Sheet)

Number: H-83 Issue: 18

MODEL AS 350 D (Cont'd)

Engine Limits

	Shaft kW (HP)	Gas Generator RPM (Ng)	Pre- Modification AMS618 Exhaust Gas Temp. (T4) °C (°F)	Post Modification AMS618 or 870 Gas Temp. (T4) °C (°F)
Maximum Continuous	440 (590)	48923	744 (1371)	755 (1391)
Take-off (5 min.)	459 (615)	49638	771 (1420)	782 (1440)
Transient (5 sec.)	-	50548	843 * (1550)	843 (1550)
Starting (5 sec.)	-	-	899 * (1650)	899 (1650)

* Time limit 12 seconds above 832°C (1530°F)

Rotor Limits

In autorotation:	<u>RPM</u>
Maximum speed	424
Minimum speed	320
Low speed warning (aural)	335

In power-on flight:

Maximum continuous	385 +1 -5
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Oil Temperature

Maximum permitted * 99°C (210°F)

* 110°C (230°F) when OAT is higher than 38°C (100°F)

Oil Pressure

Minimum 1.4 bars (20 psi)
Normal operating 5.4 to 6.8 bars (90 ± 10 psi)
Maximum permitted 10 bars (150 psi).



Transport
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Type Certificate Data Sheet

(Continuation Sheet)

Number: H-83 Issue: 18

MODEL AS 350 D (Cont'd)

Transmission Limits

Continuous
Take-off

Maximum Torque %

101
101

Airspeed Limits (IAS)

1) VNE (Never exceed)

Knots
147

Km/h
272

From S.L. to 1,000 feet, then decreasing with altitude 3.5 kt for each 1,000 feet density altitude above 1,000 feet.

At OAT between -30°C and -40°C deduct 10 kt from the result obtained under the above law.

2) Never exceed speeds for aircraft with a trailing edge flange on lower vertical fin (AMS 07.0817)

- In power-on flight, the VNE defined in 1) must be complied with

- In power-off flight, the absolute VNE is limited to 120 knots (222 km/h) for a density altitude up to 1000 ft.

Reduction in speed versus altitude is 3.5 knots per 1000 ft. density-altitude.

Maximum Weight
(Mass)

1950 kg (4300 lb.)

Fuel

French	U.S.A.	CANADA
AIR 3405	-	CGSB 3-23
-	MIL-T5624 (JP5)	3-GP-24Ma
-	ASTMD 1655 JET A and A1	CGSB 3-23
AIR 3404	-	3-GP-24Ma
AIR 3407	-	CGSB 3-22
-	MIL-T 5624 (JP4)	CGSB 3-22
-	ASTMD 1655 JET B	CGSB 3-22

Emergency fuel-Automotive diesel oil, ASTMD975 (number 2D) or lighter.

Transport
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Type Certificate Data Sheet

(Continuation Sheet)

Number: H-83 Issue: 18

MODEL AS 350 D (Cont'd)

Fuel Additives	Anti-ice		
	<u>French</u>	<u>U.S.A.</u>	<u>NATO</u>
	AIR 3652	MIL.I 27686	S.748
	D. Eng. RD 2451, Philips PFA-55-MB		
	Max. concentration 0.15% by volume.		
	Anti-static SHELL ASA-3 max. concentration 0.0001% by volume		

Oil	<u>French</u>	<u>U.S.A.</u>	<u>NATO</u>
	-	MIL.L. 23699	0.156
	AIR 3513	MIL. 7808	0.148
	AIR 3514	-	0.150
	Mixing of these oils is not permitted.		

Oil Capacity		<u>Imperial Gals</u>	<u>Litres</u>
	Engine tank	0.87	3.95
	Main gear box (system included)	1.40	6.36
	Tail gear box	0.07	0.31

Maximum Operating Altitude	15,000 ft. - Pressure Altitude
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Serial Numbers Eligible	S/N 1028 and subsequent, and AS 350 C aircraft modified per Service Bulletin 01.01. dated 4 July 1978 or latest approved revision
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3. <u>MODEL AS 350 D1</u>	<u>(Normal Category)</u>	<u>Approved March 1, 1979</u>
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This version is identical to AS 350 D except for maximum weight.

Maximum Weight	1814 kg (4000 lb)
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Serial Numbers Eligible (See NOTE 4)	AS 350 D aircraft modified as per Service Bulletin 01.02 dated 4 July 1978 or latest approved revision and Service Bulletin 11.01 dated 4 July 1978 or latest approved revision.
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Transport
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Type Certificate Data Sheet

(Continuation Sheet)

Number: H-83 Issue: 18

4. MODEL AS 350 B (Normal Category) Approved February 8, 1980

Canadian Definition (see NOTE 3 and 4) DOT (Canada) Certification List of Mandatory Modifications for DOT Type Definition 350A.05.0027 Revision F dated 14/09/92*. Ensemble General Appareil SA 350 serie 350A.00.0000 Revision Bb dated 5/11/92*.

* or later approved revision.

Engine 1 Turbomeca Arriel 1 B

Engine Limits

	Shaft kW (HP)	Gas Generator RPM (Ng)	Exhaust Gas Temp. (T4) °C (°F)
Maximum Continuous	440 (590)	50750	775 (1427)
Take-off (5 min.)	478 (641)	51800	810 (1490)
Transient (5 sec)	-	54800	-
Maximum for Starting	-	-	840 (1544)

Oil Temperature Minimum for starting -40°C (-40°F)
Minimum for take-off 0°C (32°F)
Maximum permitted 110°C (230°F)

Oil Pressure Minimum 1.9 bars (27.5 psi) at 70% to 80% Ng
2.8 bars (40.6 psi) at 85% Ng
Normal Operating 2.0 to 4.0 bars (29 to 58 psi) at 70% Ng
4.0 to 7.6 bars (58 to 110 psi) at 101% Ng
Maximum permitted 9 bars (130 psi)

Rotor Limits In autorotation: RPM
Maximum speed 424
Minimum speed 320
Low speed warning (aural) 335
In power-on flight:
Maximum continuous 385 +1
-5



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Type Certificate Data Sheet

(Continuation Sheet)

Number: H-83 Issue: 18

MODEL AS 350 B (Cont'd)

Transmission Limits

	<u>Maximum Torque %</u>
Continuous	83
Take-off	83

Airspeed Limits (IAS)

	<u>Knots</u>	<u>Km/h</u>
1) VNE (Never exceed)	147	272

From S.L. to 1,000 feet, then decreasing with altitude 3.5 kt for each 1,000 feet density altitude above 1,000 feet.

At OAT between -30°C and -40°C deduct 10 kt from the result obtained under the above law.

- 2) Never exceed speeds for aircraft with a trailing edge flange on lower vertical fin (AMS 07.0817)

- In power-on flight, the VNE defined in 1) must be complied with
- In power-off flight, the absolute VNE is limited to 120 knots (222 km/h) for a density altitude up to 1000 ft.

Reduction in speed versus altitude is 3.5 knots per 1000 ft. density altitude.

Maximum Weight (Mass)

1950 kg (4300 lb.)

Fuel (Normal)

Type	Specifications		
	French	USA	CANADA
Kerosene-50 (JP8)	AIR 3405-F-34	MIL-T-83133 (JP8)	CGSB 3-23
Kerosene-50 (JP1)	AIR 3405-F-35	ASTM-D-1655 JET A and A1	CGSB 3-23
Wide Cut (JP4)	AIR 3407	MIL-T-5624 (JP4)	CGSB 3-22
Wide Cut	-	ASTM-D-1655 JET B	CGSB 3-22
High Flash Point (JP5) (AVCAT)	AIR 3404	-	3-GP-24Ma
	AIR 3404-F-44	MIL T 5624 (JP5)	3-GP-24Ma



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Type Certificate Data Sheet

(Continuation Sheet)

Number: H-83 Issue: 18

MODEL AS 350 B (Cont'd)

Fuel (Emergency)

Type	Specifications		
	French	USA	CANADA
Aviation Gasoline	AIR 3401 80/87	MIL G 5572 Grade 80/87	CAN 2-3.25-M82
(AVGAS)	AIR 3401 100/130	MIL G 5572 Grade 100/130	CAN 2-3.25-M82
	AIR 3401 115/145		CAN 2-3.25-M82
Automotive Gasoline	DCEA/2DMT80	MIL G 3056	

Restrictions on Emergency Fuels:

Within any one period between overhauls of the engine, the use of Aviation gasoline is limited to 25 hours maximum. Add 2% of mineral lubricating oil if possible. Maximum altitude for use is 1500 ft. pressure altitude. Maximum fuel temperature 30°C (86°F).

Oil

FRENCH	USA	UK	NATO
-	MIL.L.23699	-	0.156
-	MIL.L.7808	-	0.148*
AIR 3514	-	-	0.150*
-	-	DERD2487	0.149**
* Other oils authorized but not recommended prohibited above 15°C.			
** Other oils use prohibited below -10°C			

Mixing of these oils is not permitted.

For additional limitations on Engine Oils see Flight Manual.

Integral Engine
Oil Capacity

	<u>Imperial Gals</u>	<u>Litres</u>
Maximum	1.54	7.0
Minimum	1.0	4.54
Usable	0.54	2.45

Maximum Operating
Altitude

16,000 ft. - Pressure Altitude



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Type Certificate Data Sheet

(Continuation Sheet)

Number: H-83 Issue: 18

MODEL AS 350 B (Cont'd)

Serial Numbers Eligible (See NOTE 4) S/N 1003 and subsequent
AS 350 D aircraft converted into AS 350 B by application of Service Bulletin 01.12 dated 17 December 1984 or latest approved revision.
AS 350 BA aircraft converted into AS 350 B by application of Service Bulletin 01.39 dated 10 December 1992 or latest approved revision

5. MODEL AS 350 B1 (Normal Category) Approved July 6, 1988

Canadian Definition (see NOTE 3 & 4) DOT (Canada) Certification List of Mandatory Modifications for DOT Type Definition 350A.05.0027 Revision F dated 14/09/92*

Ensemble General Appareil SA 350 serie 350A-00-0000 Revision Bb dated 5.11.92 or latest approved revision.

Former basic certification definition "Civil Certification AS 350 B1 version definition 350A.04.4455 dated 10/01/86" or latest approved revision.

Engine 1 Turbomeca Arriel 1 D

Engine Limits	Shaft kW (HP)	Gas Generator RPM (Ng)	Exhaust Gas Temp. (T4) °C (°F)
Maximum Continuous	450 (603)	50764	795 (1463)
Take-off (5 min.)	510 (684)	52214	845 (1553)
Transient (5 sec.)	-	54649	-
Maximum for Starting	-	-	795 (1463)
Maximum Transient for Starting (5 sec.)			865 (1589)



Transport
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Type Certificate Data Sheet

(Continuation Sheet)

Number: H-83 Issue: 18

MODEL AS 350 B1 (Cont'd)

Engine Limits (Cont'd) With heating and demisting systems turned on, the power rating is to be limited to 97.5% when the O.A.T. is between 0 and +10°C and the pressure-altitude above 15000 ft.

Oil Temperature	Minimum for starting	-40°C (-40°F)
	Minimum for take-off	0°C (32°F)
	Maximum permitted	115°C (239°F)

Oil Pressure	Minimum	1.3 bar (18.9 psi) between 70% to 85% Ng
		1.8 bar (26.1 psi) at and above 85% Ng

Normal Operating 1.8 to 5 bar (26.1 to 73 psi)
Maximum Permitted 5 bar (73 psi)

Rotor Limits	In autorotation:	<u>RPM</u>
	Maximum speed	430
	Minimum speed	320
	Low speed warning (aural)	360
	In power-on flight:	
	Maximum continuous	390 +4 -5

Transmission Limits	<u>Maximum Torque %</u>
Continuous (IAS equal to or greater than 40kt)	94
Take-off (IAS less than 40kt)	100

Airspeed Limits (IAS)	<u>Knots</u>	<u>km/h</u>
1) POWER-ON VNE (Never Exceed)	155	287

-Absolute VNE: 155 kt (287 km/h) for Hp=0

At higher altitudes this speed is to be reduced by 3kt per 1000 ft. (18 km/h per 1000 m).

-At OAT below -30°C (-22°F), deduct 10 kt (19 km/h) from the result obtained under the above law.



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Type Certificate Data Sheet

(Continuation Sheet)

Number: H-83 Issue: 18

MODEL AS 350 B1 (Cont'd)

Airspeed Limits (IAS)
(Cont'd)

2)

POWER-OFF VNE (Never Exceed)

- Absolute VNE: 125 kt (232 km/h) for $H_p=0$
At higher altitudes this speed is to be reduced by 3kt per 1000 ft. (18 km/h per 1000 m).
- In cold weather, deduct the following values from the above VNE:
20 kt (37 km/h), when OAT is below -20°C (-4°F),
without VNE being less than 65 kt (120 km/h).

Maximum Weight
(Mass)

2200 Kg (4850 lb.)

Fuel (Normal)

Type	Specifications		
	French	USA	CANADA
Kerosene-50	AIR 3405-F-34	MIL-T-83133	CGSB 3-23
(JP8)		(JP8)	
Kerosene-50	AIR 3405-F-35	ASTM-D-1655	CGSB 3-23
(JP1)		JET A and & A1	
Wide Cut	AIR 3407	MIL-T-5624	CGSB 3-22
(JP4)		(JP4)	
Wide Cut	-	ASTM-D-1655	CGSB 3-22
		JET B	
High Flash	AIR 3404	-	3-GP-24Ma
Point (JP5)			
(AVCAT)	-	MIL T 5624	3-GP-24Ma
		(JP5)	



Transport
Canada

Transports
Canada

Type Certificate Data Sheet

(Continuation Sheet)

Number: H-83 Issue: 18

MODEL AS 350 B1 (Cont'd)

Fuel (Emergency)

Type	Specifications		
	French	USA	CANADA
Aviation Gasoline	AIR 3401 80/87	MIL G 5572 Grade 80/87	CAN 2-3.25-M82
(AVGAS)	AIR 3401 100/130	MIL G 5572 Grade 100/130	CAN 2-3.25-M82
	AIR 3401 115/145		CAN 2-3.25-M82
Automotive Gasoline	DCEA/2DMT80 MIL G 3056		

Restrictions on Emergency Fuels:

Within any one period between overhauls of the engine, the use of Aviation gasoline is limited to 25 hours maximum. Add 2% of mineral lubricating oil if possible. Maximum altitude for use is 1500 ft. pressure altitude. Maximum fuel temperature 30°C (86°F).

Oil

FRENCH	USA	UK	NATO
-	MIL.L.23699	-	0.156
-	MIL.L.7808	-	0.148*
AIR 3514	-	-	0.150*
		DERD2487	0.149**

* Other oils authorized but not recommended prohibited above 15°C

** Other oils use prohibited below -10°C

Mixing of these oils is not permitted.

For additional limitations on Engine Oils see Flight Manual.

Integral Engine

Oil Capacity

	Imperial Gals	Litres
Maximum	1.54	7.0
Minimum	1.0	4.54
Usable	0.54	2.45

Maximum Operating Altitude

20,000 ft. - Pressure Altitude

Serial Numbers Eligible

S/N 1822 and subsequent.



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6. MODEL AS 350 B2 (Normal Category) Approved December 5, 1990

Canadian Definition (see NOTE 3 & 4) For AS 350 B2 rotorcraft without VEMD:
DOT (Canada) Certification List of Mandatory Modification for DOT
Type Definition 350A.05.0027 Revision F Dated 14/09/92*

For AS 350 B2 rotorcraft with VEMD: EASA type definition
Ensemble General Appareil SA 350 serie 350A-00-0000 Revision Bb
dated 5/11/92*

*or latest approved revision

Former basic Certification Definition - Civil Certification Definition
350A.04.4541 Revision C dated 19/04/89*

Engine 1 Turbomeca Arriel 1D1

Engine Limits

	Shaft kW (HP)	Gas Generator RPM (Ng)	Exhaust Gas Temp. (T4) °C (°F)
Maximum Continuous	466 (625)	50750	795 (1463)
Take-off (5 min.)	531 (712)	52328	845 (1553)
Transient (5 sec)	-	55685	-
Maximum for Starting	-	-	795 (1463)
Maximum Transient for Starting (5 secs)			865 (1589)

Oil Temperature	Minimum for starting	-40°C (-40°F)
	Minimum for take-off	-0°C (32°F)
	Maximum permitted	115°C (239°F)

Oil Pressure

Minimum	1.3 bars (18.9 psi) at 70% to 85% Ng
	1.8 bars (26.1 psi) above 85% Ng
Normal Operating	26.1 to 73 psi
Maximum permitted	73 psi



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(Continuation Sheet)

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MODEL AS 350 B2 (Cont'd)

Rotor Limits

In autorotation:

	<u>RPM</u>
Maximum speed	430
Minimum speed	320
Low speed warning (aural)	360
High speed warning (aural)	410

In power-on flight:

Maximum continuous	390	+4 -5
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Transmission Limits

	<u>Maximum Torque %</u>
Continuous (IAS equal to or greater than 40 kt)	94
Take-off (IAS less than 40 kt)	100
Transient (10 sec)	107

Airspeed Limits (IAS)

	<u>Knots</u>	<u>km/h</u>
<u>Power-on VNE</u> (Never Exceed)	155	287
Absolute VNE: 155 kt (287 km/h) for $H_p=0$		

At higher altitudes this speed is to be reduced by 3 kt per 1000 ft. (18 km/h per 1000 m).

In cold weather, when OAT is below -30°C , subtract 10 kt (19 km/h) from the above VNE.

Power-off VNE (Never exceed)

Absolute VNE: 125 kt (231 km/h) for $H_p=0$.

At higher altitudes this speed is to be reduced by 3 kt per 1000 ft. (18 km/h per 1000 m).

In cold weather, deduct the following values from the above VNE:

20 kt (37 km/h), when OAT is below -20°C (-4°F), without VNE being less than 65 kt (120 km/h).



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MODEL AS 350 B2 (Cont'd)

Maximum Weight (Mass) 2250 kg (4960 lb.)

Fuel (Normal)

Type	Specifications		
	French	USA	CANADA
Kerosene-50 (JP8)	AIR 3405-F-34	MIL-T-83133 (JP8)	CGSB 3-23
Kerosene-50 (JP1)	AIR 3405-F-35	ASTM-D-1655 JET A and A1	CGSB 3-23
Wide Cut (JP4)	AIR 3407	MIL-T-5624 (JP4)	CGSB 3-22
Wide Cut	-	ASTM-D-1655 JET B	CGSB 3-22
High Flash Point (JP5) (AVCAT)	AIR 3404	-	3-GP-24Ma
	AIR 3404-F-44	MIL T 5624 (JP5)	3-GP-24Ma

Fuel (Emergency)

Type	Specifications		
	French	USA	CANADA
Aviation Gasoline (AVGAS)	AIR 3401 80/87	MIL G 5572 Grade 80/87	CAN 2-3.25-M82
	AIR 3401 100/130	MIL G 5572 Grade 100/130	CAN 2-3.25-M82
	AIR 3401 115/145		CAN 2-3.25-M82
Automotive Gasoline	DCEA/2DMT80	MIL G 3056	

Restrictions on Emergency Fuels:

Within any one period between overhauls of the engine, the use of Aviation gasoline is limited to 25 hours maximum. Add 2% of mineral lubricating oil if possible. Maximum altitude for use is 1500 ft. pressure altitude. Maximum fuel temperature 30°C (86°F).



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MODEL AS 350 B2 (Cont'd)

Engine Oil	FRENCH	USA	UK	NATO
	-	MIL.L.23699	-	0.156
	-	MIL.L.7808	-	0.148*
	AIR 3514	-	-	0.150*
	-	-	DERD2487	0.149**
	* Other oils authorized but not recommended prohibited above 15°C			
	** Other oils use prohibited below -10°C			

Mixing of these oils is not permitted.

For additional limitations on Engine Oils see Flight Manual.

Integral Engine Oil Capacity		<u>Imperial Gals</u>	<u>Litres</u>
	Maximum	1.54	7.0
	Minimum	1.0	4.54
	Usable	0.54	2.45

Maximum Operating Altitude 20,000 ft. - Pressure Altitude

Serial Numbers Eligible (See NOTE 4) S/N 2100 and subsequent
AS 350 B1 aircraft converted into AS 350 B2 by application of Service Bulletin 01.26, 4 January 1991 or latest approved revision

AS 350 BA aircraft converted into AS 350 B2 by application of Service Bulletin 01.00.50, September 24, 2001 or latest approved revision

AS 350 B2 aircraft with VEMD major modification S/N 4129 and subsequent

7. MODEL AS 350 BA (Normal Category) Approved April 29, 1992

Canadian Definition (see NOTE 3 & 4) DOT (Canada) Certification List of Mandatory Modifications for DOT Type Definition 350A-05-0027 Revision F dated 14/09/92*

Ensemble General Appareil SA 350 serie 350A-00-0000 Revision Bb dated 5/11/92*
Equipment List 350A.04.4717 dated 26/02/92*
* or latest approved revision

Engine 1 Turbomeca Arriel 1B

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Type Certificate Data Sheet

(Continuation Sheet)

Number: H-83 Issue: 18

MODEL AS 350 BA (Cont'd)**Engine Limits**

	Shaft kW (HP)	Gas Generator RPM (Ng)	Exhaust Gas Temp. (T4) °C (°F)
Maximum Continuous	440 (590)	50750	775 (1427)
Take-off (5 min.)	478 (641)	51800	810 (1490)
Transient (5 sec.)	-	54400	-
Maximum for Starting (5 seconds Max. beyond 775°)	-	-	840 (1544)

Oil Temperature

Minimum for starting	-40°C (-40°F)
Minimum for take-off	-0°C (32°F)
Maximum permitted	110°C (230°F)

Oil Pressure

Minimum	1.9 bars (27.5 psi) at 70% to 80% Ng 2.8 bars (40.6 psi) at 85% Ng
Normal Operating	2.0 to 4.0 bars (29 to 58 psi) at 70% Ng 4.0 to 7.6 bars (58 to 110 psi) at 101% Ng
Maximum permitted	9 bars (130 psi)

Rotor Limits

In autorotation:	<u>RPM</u>
Maximum speed	430
Minimum speed	320
Low speed warning (aural)	360
In power-on flight:	
Maximum continuous	390 +4 -5



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MODEL AS 350 BA (Cont'd)

Transmission Limits

Maximum Torque %

Continuous
(IAS equal to or greater than 40kt)

83

Take-off
(IAS less than 40 kt)

88

Airspeed Limits (IAS)

Knots

km/h

POWER-ON VNE (Never Exceed)

155

287

Absolute VNE: 155 kt (287 km/h) for $H_p=0$

At higher altitudes this speed is to be reduced by 3kt per 1000 ft.
(18 km/h per 1000 m).

In cold weather, when OAT is below -30°C , subtract 10 kt (19 km/h)
from the above VNE.

POWER-OFF VNE (Never Exceed)

Absolute VNE: 125 kt (231 km/h) for $H_p=0$

At higher altitudes this speed is to be reduced by 3 kt per 1000 ft.
(18 km/h per 1000 m).

In cold weather, deduct the following values from the above VNE:
20 kt (37 km/h), when OAT is below -20°C (-4°F), without VNE being
less than 65 kt (120 km/h).

Maximum Weight
(Mass)

2100 Kg (4630 lb.)



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MODEL AS 350 BA (Cont'd)

Fuel (Normal)

Type	Specifications		
	French	USA	CANADA
Kerosene-50	AIR 3405-F-34	MIL-T-83133	CGSB 3-23
(JP8)		(JP8)	
Kerosene-50	AIR 3405-F-35	ASTM-D-1655	CGSB 3-23
(JP1)		JET A & A1	
Wide Cut	AIR 3407	MIL-T-5624	CGSB 3-22
(JP4)		(JP4)	
Wide Cut	-	ASTM-D-1655	CGSB 3-22
		JET B	
High Flash	AIR 3404-F43	-	3-GP-24Ma
Point (JP5)			
(AVCAT)	AIR 3404-F-44	MIL T 5624	3-GP-24Ma
		(JP5)	

Fuel (Emergency)

Type	Specifications		
	French	USA	CANADA
Aviation	AIR 3401	MIL G 5572	CAN 2-3.25-M82
Gasoline	80/87	Grade 80/87	
(AVGAS)			
	AIR 3401	MIL G 5572	CAN 2-3.25-M82
	100/130	Grade 100/130	
	AIR 3401	MIL G 5572	CAN 2-3.25-M82
	115/145	Grade 115/145	

Automotive	DCEA/2DMT80	MIL G 3056
Gasoline		

Restrictions on Emergency Fuels:

Within any one period between overhauls of the engine, the use of Aviation gasoline is limited to 25 hours maximum. Add 2% of mineral lubricating oil if possible. Maximum altitude for use is 1500 ft. pressure altitude. Maximum fuel temperature 30°C (86°F).



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MODEL AS 350 BA (Cont'd)

Engine Oil	French	USA	NATO
Normal Oil whole flight envelope	-	MIL-L-23699	0.156

Other Oils	-	MIL-L-7808	0.148
Prohibited above +15°C	AIR 3514	AEROSHELL TURBINE OIL 390	0.150

Mixing of these oils is not permitted.

Other Oils Prohibited below -10°C	0.149
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For information on temperature limitations, oil specifications, and changes in oil grade or specification refer to flight manual as listed in Approved Publications.

Integral Engine Oil Capacity		<u>Imperial Gals</u>	<u>Litres</u>
	Maximum	1.54	7.0
	Minimum	1.0	4.54
	Usable	0.54	2.45

Maximum Operating Altitude	16,000 ft. - Pressure Altitude
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Serial Numbers Eligible (See NOTE 4)	S/N 2588 and subsequent AS 350 B aircraft converted into AS 350 BA by application of Service Bulletin No. 01.35 dated 12 March 1992 or later approved revision. AS 350 D aircraft converted into AS 350 BA by application of Service Bulletin No. 01.40 dated 4 March 1993 or later approved revision.
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Type Certificate Data Sheet

(Continuation Sheet)

Number: H-83 Issue: 18

8. MODEL AS 350 B3 (Normal Category) Approved March 25, 1998

Canadian Definition (See NOTE 3) DOT (Canada) Certification List of Mandatory Modification for DOT Type Definition 350A.05.0027 Revision F Dated 14/09/92*

Ensemble General Appareil SA 350 serie 350A-00-0000 Revision Bb dated 5/11/92*

* or later approved revisions

Engine 1 Turbomeca Arriel 2B
1 Turbomeca Arriel 2B1

Engine Limits Arriel 2B & 2B1

	Torque (m.da.N)	Gas Generator * RPM (Ng)	Exhaust Gas Temp. (T4) °C (°F)
Maximum Continuous	71.6	97.1%	849 (1560)
Take-off (5 min.)	85.3	101.1%	915 (1679)
Transient (≤ 5 sec)	-	102.3%	
Maximum Transient for Starting (10 secs)			865 (1589)

* 100% Ng = 52110 RPM

Oil Temperature	Minimum for starting (with 3.9 cSt oil)	-50°C (-58°F)
	Minimum for starting (with 5 cSt oil)	-30°C (-22°F)
	Minimum for take-off (with 3.9 cSt oil)	-10°C (14°F)
	Minimum for take-off (with 5 cSt oil)	-0°C (32°F)
	Maximum permitted	115°C (230°F)

Oil Pressure	Minimum	1.1 bars (16 psi)
	Normal Operating	2.0 to 6.0 bars (29 to 87 psi)
	Maximum permitted	9.8 bars (142.1 psi)



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Number: H-83 Issue: 18

MODEL AS 350 B3 (Cont'd)

Rotor Limits

RPM

Normal range power on

Arriel 2B

385 to 394

Arriel 2B1

375 to 405

Power off

320 to 430 *

* aural warning greater than or equal to 410 rpm and less than or equal to 360 rpm.

Airspeed Limits (IAS)

Knots

km/h

POWER-ON VNE (Never Exceed) sea level

155

287

POWER-OFF VNE (Never Exceed) sea level

125

231

See Rotorcraft Flight Manual for decrease of these values with altitude and temperature.

Maximum Weight (Mass)

2250 Kg (4960 lb.)

2370 Kg (5220 lb.) see Note 5

Fuel

Refer to Flight Manual listed in Approved Publications

Oil

Refer to Flight Manual listed in Approved Publications for approved engine and gearbox oils.

Maximum Operating Altitude

23,000 ft. - Pressure Altitude

Serial Numbers Eligible

S/N 2968, S/N 3063 and subsequent

S/N 4201 and subsequent for aircraft incorporating mod OP-3369
(2370 kg (5220 lb.) maximum weight).



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Type Certificate Data Sheet

(Continuation Sheet)

Number: H-83 Issue: 18

9. MODEL EC 130 B4 (Normal Category) Approved June 17, 2002

Canadian Definition DOT (Canada) Certification List of Mandatory Modifications for DOT Type Definition 350A.05.0027 Revision H dated 5 June 2002.

Engine 1 Turbomeca Arriel 2B1

Engine Limits		Gas (1) Generator (Ng) %	Exhaust Gas Temp. (T4) °C (°F)
	Maximum Continuous	97.1	849 (1560)
	Maximum Take-off (5 min)	101.1	915 (1679)
	Maximum Transient	102.3	865 (10s) (1589)
	Maximum Continuous during starting (1) 100% = 52110 rpm		750 (1382)
Oil Temperature	Minimum for starting (with 3.9 cSt oil)	-50°C (-58°F)	
	Minimum for take-off	-0°C (32°F)	
	Maximum permitted	115°C (230°F)	
Oil Pressure	Minimum	1.1 bars (16 psi)	
	Normal Operating	2.0 to 6.0 bars (29 to 87 psi)	
	Maximum permitted	9.8 bars (142.1 psi)	
Rotor Limits		<u>RPM</u>	
	Normal range power on	375 to 405	
	Maximum power off	430*	
	Minimum power off	320**	

* aural warning greater than or equal to 410 rpm

** aural warning less than or equal to 360 rpm



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(Continuation Sheet)

Number: H-83 Issue: 18

MODEL EC 130 B4 (Cont'd)

Transmission		<u>Maximum Torque %</u>
Torque Limits	Max. Continuous	92.7
	Max. Take-off	100
	Max. Transient (5s)	104

Airspeed Limits (IAS)	<u>Knots</u>	<u>km/h</u>
POWER-ON VNE (Never Exceed) sea level	155	287
POWER-OFF VNE (Never Exceed) sea level	125	231

See Rotorcraft Flight Manual for decrease of these values with altitude and temperature.

Maximum Weight
(Mass) 2427 Kg (5351 lb.)

Fuel Refer to Flight Manual listed in Approved Publications

Oil Refer to Flight Manual listed in Approved Publications for approved engine and gearbox oils.

Maximum Operating
Altitude 23,000 ft. - Pressure Altitude

Serial Numbers Eligible S/N 3358 and subsequent

DATA PERTINENT TO ALL MODELS EXCEPT AS INDICATED

C.G. Limits	See AFM as listed in Approved Publication
Datum	Longitudinal: 3.4 m. (133.8 in.) forward of main rotor hub centre.
Levelling Means	Transmission support platform or mechanical Floor
Minimum Crew	1 pilot
Maximum Occupants	6, including crew
	<u>EC 130 B4</u>
	7, (8 with modification OP 3673 installed), including crew



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Maximum Cargo

	kg	lb
Right baggage compartment:	100	(220)
Left baggage compartment:	120	(264)
Rear baggage compartment:	80	(176)
Main cabin, on rear:	310	(683)
Main cabin, on forward:	150	(330)

EC 130 B4

	kg	lb
Right baggage compartment:	130	(287)
Left baggage compartment:	155	(342)
Rear baggage compartment:	80	(176)
Rear cabin floor:	495	(1091)
LH forward cabin floor:	405	(893)

Fuel Capacity

	<u>Pre Mod 07.0289</u>		<u>Post Mod 07.0289</u>	
	<u>Imperial Gals</u>	<u>Litres</u>	<u>Imperial Gals</u>	<u>Litres</u>
Usable	116.4	529	118.5	538.75
Unusable	2.4	11	0.3	1.25
Total	118.8	540	118.8	540

EC 130 B4

Quantities are equal to Post Mod 07.0289 values

Rotor Blade Movements

For rigging information, refer to the applicable AS 350 or EC 130 B4 Maintenance Manual.

Basis of Certification

- 1) FAR 27 effective 1 February 1965 including Amendments 27-1 through 27-10.

DGAC special conditions notified by DGAC letters 6518 dated 17 August 1976 and 6437 dated 28 July, 1977. (Annex 1 of Report 350A05.0021 dated 18 May, 1977).

- 2) Equivalent safety in lieu of direct compliance, found with respect to FAR 27.1189, Shut-off Means.



Type Certificate Data Sheet

(Continuation Sheet)

Number: H-83 Issue: 18

Basis of Certification
(Cont'd)

3) AS 350 B2, B1, BA

In addition to items 1) and 2) above, the following Additional Airworthiness Requirements as published in the Canadian Airworthiness Manual Chapter 527 (Normal Category Rotorcraft First edition, July 1986):

- (a) 527.1301-1 Rotorcraft Operations after Ground Cold Soak;
- (b) 527.1557(c)(3) Miscellaneous Markings and Placards;
- (c) 527.1581 Rotorcraft Flight Manual.

For AS 350 B2 aircraft equipped with VEMD as above plus:

Special conditions on protection against the effects of High Intensity Radiated Fields (HIRF) and Lightning and an Equivalent Safety Finding for Powerplant instrument markings in EASA CRI A-1 Issue 3 dated 17 November 2006.

In addition to item 3) above, the following Additional Airworthiness Requirement as published in Airworthiness Manual Chapter 527 (Normal Category Rotorcraft) First Edition, July 1986:

527.1583(h) - Operating Limitations - Ambient Temperature

4) AS 350 B3

In addition to items 1), 2), and 3) above, the following Additional Airworthiness Requirement as published in Airworthiness Manual Chapter 527 (Normal Category Rotorcraft) First Edition, July 1986:

527.1583(h) - Operating Limitations - Ambient Temperature

AS 350 B3 aircraft with Modification OP-3369 (2370 kg maximum weight, see Note 5)

In addition to the above the following requirements from CS 27 first issue of 14 November 2003 (ED Decision 2003/15/RM) to replace the same numbered paragraphs of FAR 27:

CS27 §1; §21; §25; §27; §33; §45; §51; §65; §71; §73; §75; §79; §141; §143; §173; §175; §177; §241; §301; §303; §305; §307; §309; §321; §337; §339; §341; §351; §471; §473; §501; §505; §521; §547; §549; §563(b); §571; §602; §661; §663; §695; §723; §725; §727; §737; §751; §753; §801(b)(d); §865; §927(c); §1041; §1043; §1045; §1301; §1501; §1519; §1529; §1581; §1583; §1585; §1587; §1589.

CS-36, Provisions of Chapter 8 ICAO Annex 16, Volume I, Part II third edition, amendment 7.



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Basis of Certification (Cont'd)

5) EC 130 B4

The following basis of certification has been accepted as equivalent to the Airworthiness Manual Chapter 527 at Change 3 dated January 3, 1994;

- a) JAR 27 first issue dated September 6, 1993 with orange paper amendment 27/98/1 effective February 16, 1998.
- b) JAA Special Condition on High Intensity Radiated Field.
- c) Exemption for rear bench seat regarding JAR 27 -562 and JAR 27-785(a),(b),(j) and for fuel systems regarding JAR 27 952(a),(c),(d),(f),(g).
- d) Equivalent safety findings on main gearbox oil filter by pass and powerplant instrument markings.
- e) Noise as per JAR 36 first issue dated May 23, 1997 Subpart D, Section 1.
- f) Fuel discharge as per ICAO second edition dated July 1993 Annex 16, Volume 2, 2nd part.

6) In addition the following Transport Canada Additional Airworthiness Requirements as published in the Canadian Airworthiness Manual, Chapter 527, change 3 dated 03 Jan 94

- 527.1093 (b)(1) Engine Operation in Snow
- 527.1301-1 Rotorcraft Operations After Ground Cold Soak
- 527.1557(c)(3) Miscellaneous Markings and Placards
- 527.1581(e),(f) Rotorcraft Flight Manual
- 527.1583(h) Operating Limitations, Ambient Temperature

Required Equipment

The basic required equipment as prescribed in the applicable airworthiness requirements (see Basis of Certification) must be installed in the rotorcraft.

AS 350 B, B1, B2, B3, BA, C, D, D1 and EC 130 B4

Eurocopter France Report No. 350A.05.0027 lists required and optional equipment.

In addition, the following item of equipment is required:

- a) DGAC or EASA Approved Flight Manual as listed in Approved Publications.



Type Certificate Data Sheet

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Number: H-83 Issue: 18

Placards

All placards must be installed in the specified locations in accordance with the following Aerospatiale drawings:

Applicable to AS 350 B, D, D1, B1, B2, B3, BA. Refer to RFM as listed in Approved Publications:

- 1) 350A00.0311 External minimum markings.
- 2) 350A00.0120 External cabin and cockpit markings.
- 3) 350A00.0122 Equipment markings.

Applicable only to the AS 350 D1:

- 1) 350A76.5060.20 is to be added.

Applicable only to the EC 130 B4:

As per RFM as listed in Approved Publications

Approved Publications

EASA approved Rotorcraft Flight Manual Code C unless otherwise specified below and EASA approved Airworthiness Limitations Section of Maintenance Manual.

AS 350 B2 without VEMD

DGAC approved Rotorcraft Flight Manual Code C revision 0 dated 89-17 or later approved revision

AS 350 B2 with VEMD

EASA approved Rotorcraft Flight Manual, dated October 2006 or later approved revision

AS 350 B3

DGAC Approved Flight Manual AS 350 B3 ARRIEL 2B, dated 24 December, 1997 plus rapid revision RR 1A or later approved revision.

EASA Approved Flight Manual AS 350 B3 ARRIEL 2B1, dated July 16, 2004 or later approved revision.

EC 130 B4

Eurocopter Flight Manual EC130B4, dated 29 Nov. 2000 or later approved revisions.



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Number: H-83 Issue: 18

Life Limited Parts

Service Life limited parts shall be retired in accordance with the Airworthiness Limitations Section (CD 5.99) of the Manufacturer's Maintenance Manual.

EC 130 B4

As per Master Servicing Manual EC130B4 Chapter 04 Rev. 1, 30 March 2001 or later approved revisions.

Import Requirements

The import documentation must include:

- a) A Certificate of Airworthiness for Export signed by the French Airworthiness Authority (DGAC);
or
- b) A Certificate of Airworthiness for Export signed by the Airworthiness Authority of a country with whom Canada has a Bilateral Airworthiness Agreement.

In case a) or b), the C of A must contain the following statement:

"The aircraft identified by this Certificate has been examined and found to conform to the Canadian Department of Transport Type Certificate H-83";

or

- c) Other procedures approved by the Minister of Transport

NOTE 1

The current Weight and Balance Report, including list of equipment included in approved empty weight, and loading instructions when necessary must be in each Rotorcraft at the time of original certification.

NOTE 2

For compliance with applicable powerplant ice protection requirements, the helicopter must be equipped with engine air inlet conforming with Aerospatiale drawing number 350A58.1608 for models AS 350 D and D1, and Aerospatiale drawing number 350A58-1607 for model AS 350 B, B1, B2, B3, BA and EC 130 B4 during all operations.

NOTE 3

Basic Canadian Definition is described in "Production Modifications" document number 350A.04.4475 dated 13.01.86.



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(Continuation Sheet)

Number: H-83 Issue: 18

NOTE 4

Conversions are permitted as follows:

<u>Conversion from/to</u>	<u>Service Bulletin</u>	<u>Dated</u>
350 D to D1	01.02	4 July 1978*
350 D to D1	11.01	4 July 1978* **
350 C to D	01.01	4 July 1978*
350 B1 to B2	01.26 ed 2 R 1	4 January 1991*
350 D to B	01.12	17 December 1984*
350 B to BA	01.35	12 March 1992*
350 BA to B	01.39	10 December 1992*
350 D to BA	01.40	4 March 1993*
350 BA to B2	01.00.50	24 September 2001*
350 B to B2	01.00.51	10 October 2001*

* or latest approved revision

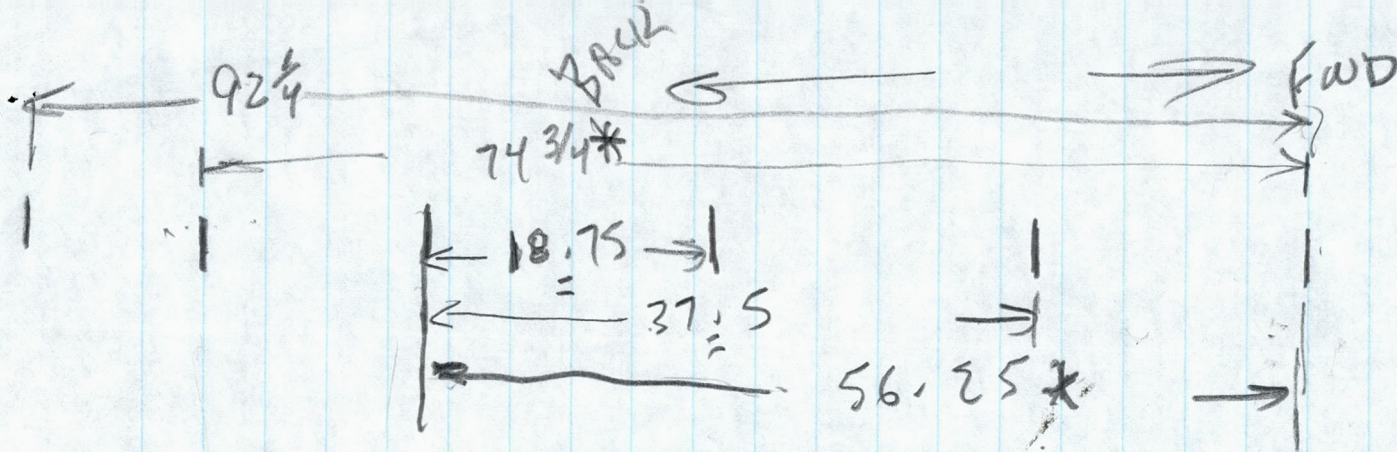
** Regulatory label for DOT maximum weight 4,000 lbs.

NOTE 5

Maximum Internal Weight of 2370 Kg (5220lb) applies to AS350 B3 aircraft equipped with Arriel 2B1 engines and dual hydraulic systems only per modification OP 3369.

- END -

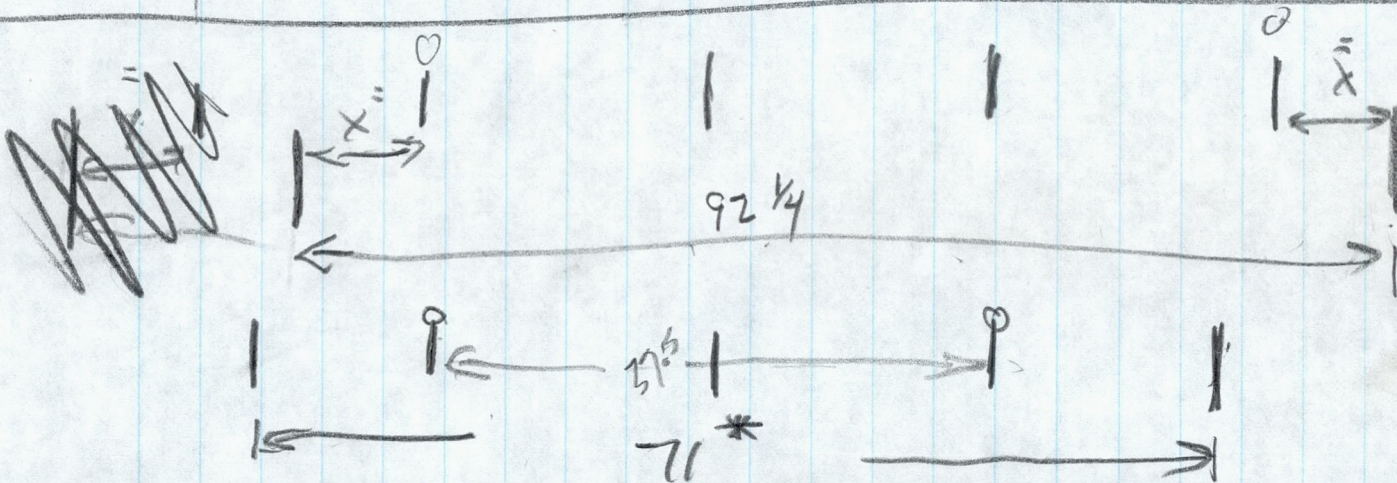
J.D. Turnbull
Chief, Project Management
National Aircraft Certification
for Minister of Transport



AS 350 * SHORT
AS 350

407/206L LOW
* AS 350 QUICK
MED DET

BELL 206L/407
HIGH SKI



* AS 350
LONG

212

206/407 Handle, lid brace, fittings + bolts = 2.6 lb.
6' hinge = 0.8 lb.

FEB 27/08

Basket weights

212 Ski Basket

66 LB

69.6 lb.

Basket + lid only.

total

AS350 large 93 1/4

16.6 + 33.0 LB

53 lb.

lid

Basket

total

11.0 from OB EDGE

Small 57 1/4

30.6 LB

34 lb. total

10 1/8 from outside

OB

edge.

61 1/4

36.2 LB (w/ALL HARDWARE)

total

MED 75 3/4

39.6 LB

43 lb

10 3/4 from OB EDGE

total

AS350 Clamp set

0.8 lb. w/bolts.

High Beams (pair) 9.2 lb w/ bolts + knobs/pins

Low Beams (pair) 6.2 lbs w/ bolts + knobs/pins

212.

Basket Cof G 14 1/4 from outside

AI. AFT BEAM 6.8 lbs.
AI. FWD BEAM 6.8 lbs.

May 23/2007

LOW REGULAR. 44.2

QUICK RELEASE
w/ TREAD
open front } 47.0

QR High/Tall Basket only. 31.4

~~QR FWD BEAM~~
~~QR AFT BEAM.~~

CRYSTAL BOX FWD WIDE 13.6 lb.
AFT WIDE 14.2 lb.

FWD SMALL 8.6 lb.
AFT SMALL 8.8 lb.

Cradle (2) 4.0 lb.

AFT FITTING 1.6 lb.
FWD Fitting 1.4 lb.

SEPT 27/07

212 Basket 49.4 lb. Complete

212 LID 21.2 lb

212 Aft Beam Assy 4.6 lb.

Fwd Beam Assy 5.0 lb.

LID BRACE 0.8 lb.

QR. HIGH FWD BEAM 11.8 lb

AFT BEAM 11.4 lb.

407 QR w/LID STEP, CLOSED FRONT
46.0 lb.

Powder coated

not powder coated 46.0

powder coat is negligible.

407

72.00 Rim length 11.25 ft² mesh
Step length

93.25 Rim 14.57 ft² mesh
56.8 Step.

212

Difference	+ 21.25 x 2 + 21	3/4" tube.	1.80
	- 15.2 x 2	3/4" tube	- 0.86
	+ 3.32 ft ²	mesh	+ 1.66
	- 15.2 x 6 = 91.2 in ²	tread plate	
	x 0.06 = 5.5		
		x 0.1 lb/in ³	- 0.55
			+ 2.05 lb

407 HIGH QR BASKET = 31.4

+ 21.2

+ 2.0

+ 0.8
55.4

MSI 53 – Review of Supplemental Instructions for Continued Airworthiness

APPENDIX A-3 NORMAL CATEGORY ROTORCRAFT – CAR 529

BLOCK 1

Name of the applicant for the design change approval:	Aero Design Ltd.
Description of the design change:	Installation of Quick Release Cargo Basket on Eurocopter AS350 & AS355 Series
Certification Basis of design change and revision date:	FAR 27, Amendment 27-20
CAR Standard A527.1(c) Program showing how changes to supplemental ICA made by the applicant or by the manufacturers of products and appliances installed in the aeroplane pursuant to the design change will be distributed:	Section 0-3 of Supplemental ICA (ICA 764.90)
CAR Standard 513.05 (1) (g) (iv): Installation Instructions:	Installation Drawing 76401, 77601, 77602, 78401, 78402, 78601

BLOCK 2

Note: Enter "N/A" when no supplemental ICA are needed.

Regulatory Standard Reference Column 1	Design Approval Holder (DAH) ICA Reference Column 2	Applicant Means of Compliance Supplemental ICA Requirements Column 3
A527.2 (a) Manual(s) (a) The Instructions for Continued Airworthiness must be in the form of a manual or manuals as appropriate for the quantity of data to be provided.	ICA ref: Eurocopter AS350/AS355 Maintenance Manuals	Supplemental ICA ref: Single Manual (ICA764.90)
A527.2 (b) Practical arrangement (b) The format of the manual or manuals must provide for a practical arrangement.	ICA ref: Eurocopter AS350/AS355 Maintenance Manual	Supplemental ICA ref: Arranged in ATA format
A527.3 The Instructions for Continued Airworthiness must contain the following manuals or sections, as appropriate, and information:		
A527.3 (a) Rotorcraft maintenance manual or section		
A527.3 (a) (1) (Introduction) (1) Introduction information that includes an explanation of the rotorcraft's features and data to the extent necessary for maintenance or preventive maintenance.	ICA ref: Eurocopter Description and Operation Manual	Supplemental ICA ref: Section 0-1
A527.3 (a) (2) (Description) (2) A description of the rotorcraft and its systems and installations including its engines, rotors, and appliances.	ICA ref: Eurocopter Description and Operation Manual	Supplemental ICA ref: Section 0-5

MSI 53 – Review of Supplemental Instructions for Continued Airworthiness

Regulatory Standard Reference Column 1	Design Approval Holder (DAH) ICA Reference Column 2	Applicant Means of Compliance Supplemental ICA Requirements Column 3
A527.3 (a) (3) Control & Operation (3) Basic control and operation information describing how the rotorcraft components and systems are controlled and how they operate, including any special procedures and limitations that apply.	ICA ref: Eurocopter Description and Operation Manual	Supplemental ICA ref: N/A
A527.3 (a) (4) Servicing (4) Servicing information that covers details regarding servicing points, capacities of tanks, reservoirs, types of fluids to be used, pressures applicable to the various systems, location of access panels for inspection and servicing, locations of lubrication points, lubricants to be used, equipment required for servicing, tow instructions and limitations, mooring, jacking, and levelling information.	ICA ref: Eurocopter AS350/AS355 Maintenance Manual, Chapter 12	Supplemental ICA ref: N/A
A527.3 The Instructions for Continued Airworthiness must contain the following manuals or sections, as appropriate, and information:		
A527.3 (b) Maintenance Instructions.		
A527.3 (b) (1) Scheduling 1) Scheduling information for each part of the rotorcraft and its engines, auxiliary power units, rotors, accessories, instruments, and equipment that provides the recommended periods at which they should be cleaned, inspected, adjusted, tested, and lubricated, and the degree of inspection, the applicable wear tolerances, and work recommended at these periods. However, the applicant may refer to an accessory, instrument, or equipment manufacturer as the source of this information if the applicant shows that the item has an exceptionally high degree of complexity requiring specialized maintenance techniques, test equipment, or expertise. The recommended overhaul periods and necessary cross-references to the Airworthiness Limitations section of the manual must also be included. In addition, the applicant must include an inspection program that includes the frequency and extent of the inspections necessary to provide for the continued airworthiness of the rotorcraft.	ICA ref: Eurocopter AS350/AS355 Maintenance Manual, Chapter 5	Supplemental ICA ref: Section 5-1
A527.3 (b) (2) Troubleshooting (2) Troubleshooting information describing probable malfunctions, how to recognize those malfunctions, and the remedial action for those malfunctions.	ICA ref: N/A	Supplemental ICA ref: N/A

MSI 53 – Review of Supplemental Instructions for Continued Airworthiness

Regulatory Standard Reference Column 1	Design Approval Holder (DAH) ICA Reference Column 2	Applicant Means of Compliance Supplemental ICA Requirements Column 3
A527.3 (b) (3) Removal/replacement (3) Information describing the order and method of removing and replacing products and parts with any necessary precautions to be taken.	ICA ref: Eurocopter AS350/AS355 Maintenance Manual, Chapter 25	Supplemental ICA ref: Section 25-1 thru 25-4
A527.3 (b) (4) General (4) Other general procedural instructions including procedures for system testing during ground running, symmetry checks, weighing and determining the center of gravity, lifting and shoring, and storage limitations.	ICA ref: Eurocopter AS350/AS355 Maintenance Manual, Chapter 7 and 8	Supplemental ICA ref: Section 25-5
A527.3 (c) Access (c) Diagrams of structural access plates and information needed to gain access for inspections when access plates are not provided.	ICA ref: N/A	Supplemental ICA ref: N/A
A527.3 (d) Special inspections (d) Details for the application of special inspection techniques including radiographic and ultrasonic testing where such processes are specified.	ICA ref: Eurocopter AS350/AS355 Maintenance Manual, Chapter 5	Supplemental ICA ref: Section 5-1
A527.3 (e) Protective treatment (e) Information needed to apply protective treatments to the structure after inspection.	ICA ref: Eurocopter Standard Practices Manual, Chapter 20	Supplemental ICA ref: Section 5-3
A527.3 (f) Fasteners, torque values, etc (f) All data relative to structural fasteners such as identification, discard recommendations, and torque values.	ICA ref: Eurocopter Standard Practices Manual, Chapter 20	Supplemental ICA ref: Section 25-6
A527.3 (g) Special tools (g) A list of special tools needed.	ICA ref: Eurocopter Tools Catalog	Supplemental ICA ref: N/A


BLOCK 3

Note: The statement in block 5 does not constitute an approval of the Airworthiness Limitations Section. Airworthiness Limitations differ from other maintenance tasks, in that they are mandatory, as a direct condition of the approval of the type design. They are therefore referenced directly in the approval document itself. However, they must also be included in the Supplemental Instructions for Continued Airworthiness.

MSI 53 – Review of Supplemental Instructions for Continued Airworthiness

<p>A527.4 AWL - Separate Section 1</p> <p>The Instructions for Continued Airworthiness must contain a section titled Airworthiness Limitations that is segregated and clearly distinguishable from the rest of the document. This section must set forth each mandatory replacement time, structural inspection interval, and related structural inspection procedure approved under 529.571. If the Instructions for Continued Airworthiness consist of multiple documents, the section required by this paragraph must be included in the principal manual. This section must contain a legible statement in a prominent location that reads: "The Airworthiness Limitations section is approved by the Minister and specifies maintenance required by any applicable airworthiness or operating rule unless an alternative program has been approved by the Minister."</p>	<p>ICA ref: Eurocopter AS350/AS355 Maintenance Manual, Chapter 4</p>	<p>Supplemental ICA ref: Chapter 4</p>
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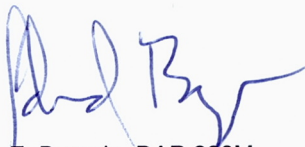
BLOCK 4 – Applicant Statement of Compliance

<p>The Supplemental ICA referenced above comprises the complete listing of supplemental ICA necessary to show compliance with the regulatory standard that supports this change in type design.</p>	
<p>Applicants Signature: </p>	<p>Date: <u>March 13, 2008</u></p>
<p>Applicants Name: <u>E. Burgoin, P.Eng, DAR 290M</u></p>	

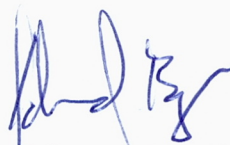
BLOCK 5 – Minister's Statement of Acceptability

<p>The design change is adequately supported by existing ICA and/or supplemental ICA, as identified above and is acceptable to the Minister.</p>			
<p>Reviewer's Name: _____</p>	<p>Phone # _____</p>	<p>Email: _____</p>	<p>Mail Routing Symbol: _____</p>
<p>Signature: _____</p>	<p>Date: _____</p>	<p>NAPA Number _____</p>	


FORM AE-100

DEPARTMENT OF TRANSPORT STATEMENT OF COMPLIANCE OF AIRCRAFT OR AIRCRAFT COMPONENTS WITH THE AIRWORTHINESS REQUIREMENTS		AE-100 No.: AE704 Initial Issue Date: 25 May, 2006 Revision: 1 Revision Date: 20 March, 2008 Approval No.: SH08-16 Delegation No.: 290M Delegate Name: E. Burgoin Classification of Designee: Employer: AERO Design Ltd.	
Aircraft Mfr: Eurocopter Aircraft Model: AS350/355 Series Registration: All Eligible		Model Type Airplane <input type="checkbox"/> Helicopter <input checked="" type="checkbox"/> Appliance <input type="checkbox"/> Component <input type="checkbox"/>	
LIST OF APPROVED REPORTS AND DATA			
Document Number	Revision	Document Title	Compliance Status
DCL704	Revision 2	Document Control List and all documents referred to therein	
70402	Revision 1	Lid Door Modification	
70403	Revision 1	Auxiliary Latch Modification	
70405	Revision 1	Lid Step Modification	
70406	Revision 0	Open Front Modification	
		DATA APPROVED BY TRANSPORT CANADA	
CERTIFICATION			
UNDER THE AUTHORITY VESTED IN ME BY THE DEPARTMENT OF TRANSPORT, I HEREBY CERTIFY THAT THE DATA LISTED ABOVE AND ON THE ATTACHED SHEETS NUMBERED Nil HAVE BEEN EXAMINED IN ACCORDANCE WITH ESTABLISHED PROCEDURES AND FOUND TO COMPLY, TO THE BEST OF MY KNOWLEDGE AND BELIEF WITH THE PERTINENT COMPLIANCE REQUIRMENTS.			
I THEREFORE <input type="checkbox"/> RECOMMEND FOR APPROVAL OF THESE DATA <input checked="" type="checkbox"/> APPROVE THESE DATA			
 E. Burgoin, DAR 290M			


FORM AE-100

DEPARTMENT OF TRANSPORT STATEMENT OF COMPLIANCE OF AIRCRAFT OR AIRCRAFT COMPONENTS WITH THE AIRWORTHINESS REQUIREMENTS		AE-100 No.: AE764-1 Initial Issue Date: 20 March, 2008 Revision: 0 Revision Date: Approval No.: SH08-16 Delegation No.: 290M Delegate Name: E. Burgoin Company: AERO Design Ltd.	
Aircraft Mfr: Eurocopter Aircraft Model: AS350 & AS355 Series Registration: ALL ELIGIBLE	Model / Type Airplane <input type="checkbox"/> Helicopter <input checked="" type="checkbox"/> Appliance <input type="checkbox"/> Component <input type="checkbox"/>		
LIST OF APPROVED REPORTS AND DATA			
Document Number	Revision	Document Title	Compliance Status
DCL764-1 76401	0 0	Document Control List and all documents referred to therein Quick Release Cargo Basket Installation	As per Compliance Program, CP764, Revision 0
DATA APPROVED BY TRANSPORT CANADA			
ICA764.90 FMS764.91	0 0	Instructions for Continued Airworthiness Flight Manual Supplement	
CERTIFICATION UNDER THE AUTHORITY VESTED IN ME BY THE DEPARTMENT OF TRANSPORT, I HEREBY CERTIFY THAT THE DATA LISTED ABOVE AND ON THE ATTACHED SHEETS NUMBERED Nil HAVE BEEN EXAMINED IN ACCORDANCE WITH ESTABLISHED PROCEDURES AND FOUND TO COMPLY, TO THE BEST OF MY KNOWLEDGE AND BELIEF WITH THE PERTINENT COMPLIANCE REQUIREMENTS.			
I THEREFORE <input type="checkbox"/> RECOMMEND FOR APPROVAL OF THESE DATA <input checked="" type="checkbox"/> APPROVE THESE DATA			
 E. Burgoin, DAR 290M			


FORM AE-100

DEPARTMENT OF TRANSPORT STATEMENT OF COMPLIANCE OF AIRCRAFT OR AIRCRAFT COMPONENTS WITH THE AIRWORTHINESS REQUIREMENTS		AE-100 No.: AE764-3 Initial Issue Date: 20 March, 2008 Revision: 0 Revision Date:	
Aircraft Mfr: Eurocopter Aircraft Model: AS350 & AS355 Series Registration: ALL ELIGIBLE	Model / Type Airplane <input type="checkbox"/> Helicopter <input checked="" type="checkbox"/> Appliance <input type="checkbox"/> Component <input type="checkbox"/>	Approval No.: SH08-16 Delegation No.: 290M Delegate Name: E. Burgoin Company: AERO Design Ltd.	
LIST OF APPROVED REPORTS AND DATA			
Document Number	Revision	Document Title	Compliance Status
DCL764-3	0	Document Control List and all documents referred to therein	As per Compliance Program, CP764, Revision 0
ER764.01	0	Engineering Report	
TR764.02	0	Load Test Plan / Report	
FTP764.03	0	Flight Test Plan / Report	
76410	0	Basket Assembly	
76411	0	Basket Body Assembly	
69812	0	Lid Assembly	
76421	0	Hoop	
76422	0	Hoop Assembly	
77627	0	Placard	
69823	1	Lug	
49215	0	Spacer	
49216	0	Spacer	
36255	1	Handle Assembly	
36261	4	Handle Bar Assembly	
36262	1	Handle Bracket Assembly	
36271	1	Handle Lever	
36272	1	Basket Bracket	
36273	1	Lid Bracket	
36274	1	Bushing	
36275	2	Bushing	
36277	0	Handle Bar	
36278	2	Spring	
36280	2	Brace Assembly	
49213	1	Lid Brace	
69824	0	Rim	
49212	0	Rim	
DATA APPROVED BY TRANSPORT CANADA			
CERTIFICATION UNDER THE AUTHORITY VESTED IN ME BY THE DEPARTMENT OF TRANSPORT, I HEREBY CERTIFY THAT THE DATA LISTED ABOVE AND ON THE ATTACHED SHEETS NUMBERED Nil HAVE BEEN EXAMINED IN ACCORDANCE WITH ESTABLISHED PROCEDURES AND FOUND TO COMPLY, TO THE BEST OF MY KNOWLEDGE AND BELIEF WITH THE PERTINENT COMPLIANCE REQUIREMENTS.			
I THEREFORE <input type="checkbox"/> RECOMMEND FOR APPROVAL OF THESE DATA <input checked="" type="checkbox"/> APPROVE THESE DATA			
 E. Burgoin, DAR 290M			

FORM AE-100

DEPARTMENT OF TRANSPORT STATEMENT OF COMPLIANCE OF AIRCRAFT OR AIRCRAFT COMPONENTS WITH THE AIRWORTHINESS REQUIREMENTS		AE-100 No.: AE776-1 Initial Issue Date: 20 March, 2008 Revision: 0 Revision Date: Approval No.: SH08-16 Delegation No.: 290M Delegate Name: E. Burgoin Company: AERO Design Ltd.	
Aircraft Mfr: Eurocopter Aircraft Model: AS350 & AS355 Series Registration: ALL ELIGIBLE	Model / Type Airplane <input type="checkbox"/> Helicopter <input checked="" type="checkbox"/> Appliance <input type="checkbox"/> Component <input type="checkbox"/>		
LIST OF APPROVED REPORTS AND DATA			
Document Number	Revision	Document Title	Compliance Status
DCL776-1 77601	0 0	Document Control List and all documents referred to therein Quick Release Cargo Basket Installation	As per Compliance Program, CP764, Revision 0
DATA APPROVED BY TRANSPORT CANADA			
ICA764.90 FMS764.91	0 0	Instructions for Continued Airworthiness Flight Manual Supplement	
CERTIFICATION UNDER THE AUTHORITY VESTED IN ME BY THE DEPARTMENT OF TRANSPORT, I HEREBY CERTIFY THAT THE DATA LISTED ABOVE AND ON THE ATTACHED SHEETS NUMBERED Nil HAVE BEEN EXAMINED IN ACCORDANCE WITH ESTABLISHED PROCEDURES AND FOUND TO COMPLY, TO THE BEST OF MY KNOWLEDGE AND BELIEF WITH THE PERTINENT COMPLIANCE REQUIREMENTS. I THEREFORE <input type="checkbox"/> RECOMMEND FOR APPROVAL OF THESE DATA <input checked="" type="checkbox"/> APPROVE THESE DATA  E. Burgoin, DAR 290M			

FORM AE-100

DEPARTMENT OF TRANSPORT STATEMENT OF COMPLIANCE OF AIRCRAFT OR AIRCRAFT COMPONENTS WITH THE AIRWORTHINESS REQUIREMENTS		AE-100 No.: AE776-2 Initial Issue Date: 20 March, 2008 Revision: 0 Revision Date:	
Aircraft Mfr: Eurocopter Aircraft Model: AS350 & AS355 Series Registration: ALL ELIGIBLE	Model / Type Airplane <input type="checkbox"/> Helicopter <input checked="" type="checkbox"/> Appliance <input type="checkbox"/> Component <input type="checkbox"/>	Approval No.: SH08-16 Delegation No.: 290M Delegate Name: E. Burgoin Company: AERO Design Ltd.	
LIST OF APPROVED REPORTS AND DATA			
Document Number	Revision	Document Title	Compliance Status
DCL776-2 77602	0 0	Document Control List and all documents referred to therein Quick Release Cargo Basket Installation	As per Compliance Program, CP764, Revision 0
DATA APPROVED BY TRANSPORT CANADA			
ICA764.90 FMS764.91	0 0	Instructions for Continued Airworthiness Flight Manual Supplement	
CERTIFICATION UNDER THE AUTHORITY VESTED IN ME BY THE DEPARTMENT OF TRANSPORT, I HEREBY CERTIFY THAT THE DATA LISTED ABOVE AND ON THE ATTACHED SHEETS NUMBERED Nil HAVE BEEN EXAMINED IN ACCORDANCE WITH ESTABLISHED PROCEDURES AND FOUND TO COMPLY, TO THE BEST OF MY KNOWLEDGE AND BELIEF WITH THE PERTINENT COMPLIANCE REQUIREMENTS.			
I THEREFORE <input type="checkbox"/> RECOMMEND FOR APPROVAL OF THESE DATA <input checked="" type="checkbox"/> APPROVE THESE DATA			
 E. Burgoin, DAR 290M			

FORM AE-100

DEPARTMENT OF TRANSPORT STATEMENT OF COMPLIANCE OF AIRCRAFT OR AIRCRAFT COMPONENTS WITH THE AIRWORTHINESS REQUIREMENTS			AE-100 No.: AE776-3 Initial Issue Date: Revision: 0 Revision Date: Approval No.: SH08- Delegation No.: 290M Delegate Name: E. Burgoin Company: AERO Design Ltd.
Aircraft Mfr: Eurocopter Aircraft Model: AS350 & AS355 Series Registration: ALL ELIGIBLE	Model / Type Airplane <input type="checkbox"/> Helicopter <input checked="" type="checkbox"/> Appliance <input type="checkbox"/> Component <input type="checkbox"/>		

LIST OF APPROVED REPORTS AND DATA				
Document Number	Revision	Document Title	Compliance Status	
DCL776-3	0	Document Control List and all documents referred to therein	As per Compliance Program, CP764, Revision 0	
ER764.01	0	Engineering Report		
TR764.02	0	Load Test Plan / Report		
FTP764.03	0	Flight Test Plan / Report		
77610	0	Basket Assembly		
77611	0	Basket Body Assembly		
77612	0	Lid Assembly		
76421	0	Hoop		
76422	0	Hoop Assembly		
77627	0	Placard		
77628	0	Placard		
69823	1	Lug		
49215	0	Spacer		
49216	0	Spacer		
36255	1	Handle Assembly		
36261	4	Handle Bar Assembly		
36262	1	Handle Bracket Assembly		
36271	1	Handle Lever		
36272	1	Basket Bracket		
36273	1	Lid Bracket		
36274	1	Bushing		
36275	2	Bushing		
36277	0	Handle Bar		
36278	2	Spring		
36280	2	Brace Assembly		
DATA APPROVED BY TRANSPORT CANADA				

CERTIFICATION

UNDER THE AUTHORITY VESTED IN ME BY THE DEPARTMENT OF TRANSPORT, I HEREBY CERTIFY THAT THE DATA LISTED ABOVE AND ON THE ATTACHED SHEETS NUMBERED Nil HAVE BEEN EXAMINED IN ACCORDANCE WITH ESTABLISHED PROCEDURES AND FOUND TO COMPLY, TO THE BEST OF MY KNOWLEDGE AND BELIEF WITH THE PERTINENT COMPLIANCE REQUIRMENTS.

I THEREFORE ☐ RECOMMEND FOR APPROVAL OF THESE DATA

☒ APPROVE THESE DATA

E. Burgoin, DAR 290M

FORM AE-100

DEPARTMENT OF TRANSPORT STATEMENT OF COMPLIANCE OF AIRCRAFT OR AIRCRAFT COMPONENTS WITH THE AIRWORTHINESS REQUIREMENTS		AE-100 No.: AE784-1 Initial Issue Date: 20 March, 2008 Revision: 0 Revision Date:
Aircraft Mfr: Eurocopter Aircraft Model: AS350 & AS355 Series Registration: ALL ELIGIBLE	Model / Type Airplane <input type="checkbox"/> Helicopter <input checked="" type="checkbox"/> Appliance <input type="checkbox"/> Component <input type="checkbox"/>	Approval No.: SH08-16 Delegation No.: 290M Delegate Name: E. Burgoin Company: AERO Design Ltd.

LIST OF APPROVED REPORTS AND DATA


Document Number	Revision	Document Title	Compliance Status
DCL784-1 78401	0 0	Document Control List and all documents referred to therein Quick Release Cargo Basket Installation	As per Compliance Program, CP764, Revision 0
DATA APPROVED BY TRANSPORT CANADA			
ICA764.90 FMS764.91	0 0	Instructions for Continued Airworthiness Flight Manual Supplement	

CERTIFICATION

UNDER THE AUTHORITY VESTED IN ME BY THE DEPARTMENT OF TRANSPORT, I HEREBY CERTIFY THAT THE DATA LISTED ABOVE AND ON THE ATTACHED SHEETS NUMBERED Nil HAVE BEEN EXAMINED IN ACCORDANCE WITH ESTABLISHED PROCEDURES AND FOUND TO COMPLY, TO THE BEST OF MY KNOWLEDGE AND BELIEF WITH THE PERTINENT COMPLIANCE REQUIREMENTS.


I THEREFORE ☐ RECOMMEND FOR APPROVAL OF THESE DATA

☒ APPROVE THESE DATA



E. Burgoin, DAR 290M

FORM AE-100

DEPARTMENT OF TRANSPORT STATEMENT OF COMPLIANCE OF AIRCRAFT OR AIRCRAFT COMPONENTS WITH THE AIRWORTHINESS REQUIREMENTS		AE-100 No.: AE784-2 Initial Issue Date: 20 March, 2008 Revision: 0 Revision Date: Approval No.: SH08-16 Delegation No.: 290M Delegate Name: E. Burgoin Company: AERO Design Ltd.	
Aircraft Mfr: Eurocopter Aircraft Model: AS350 & AS355 Series Registration: ALL ELIGIBLE	Model / Type Airplane <input type="checkbox"/> Helicopter <input checked="" type="checkbox"/> Appliance <input type="checkbox"/> Component <input type="checkbox"/>		
LIST OF APPROVED REPORTS AND DATA			
Document Number	Revision	Document Title	Compliance Status
DCL784-2 78402	0 0	Document Control List and all documents referred to therein Quick Release Cargo Basket Installation	As per Compliance Program, CP764, Revision 0
DATA APPROVED BY TRANSPORT CANADA			
ICA764.90 FMS764.91	0 0	Instructions for Continued Airworthiness Flight Manual Supplement	
CERTIFICATION UNDER THE AUTHORITY VESTED IN ME BY THE DEPARTMENT OF TRANSPORT, I HEREBY CERTIFY THAT THE DATA LISTED ABOVE AND ON THE ATTACHED SHEETS NUMBERED Nil HAVE BEEN EXAMINED IN ACCORDANCE WITH ESTABLISHED PROCEDURES AND FOUND TO COMPLY, TO THE BEST OF MY KNOWLEDGE AND BELIEF WITH THE PERTINENT COMPLIANCE REQUIREMENTS. I THEREFORE <input type="checkbox"/> RECOMMEND FOR APPROVAL OF THESE DATA <input checked="" type="checkbox"/> APPROVE THESE DATA  E. Burgoin, DAR 290M			

FORM AE-100

DEPARTMENT OF TRANSPORT STATEMENT OF COMPLIANCE OF AIRCRAFT OR AIRCRAFT COMPONENTS WITH THE AIRWORTHINESS REQUIREMENTS			AE-100 No.: AE784-3 Initial Issue Date: Revision: 0 Revision Date: Approval No.: SH08- Delegation No.: 290M Delegate Name: E. Burgoin Company: AERO Design Ltd.
Aircraft Mfr: Eurocopter Aircraft Model: AS350 & AS355 Series Registration: ALL ELIGIBLE	Model / Type Airplane <input type="checkbox"/> Helicopter <input checked="" type="checkbox"/> Appliance <input type="checkbox"/> Component <input type="checkbox"/>		

LIST OF APPROVED REPORTS AND DATA				
Document Number	Revision	Document Title	Compliance Status	
DCL784-3	0	Document Control List and all documents referred to therein	As per Compliance Program, CP764, Revision 0	
ER764.01	0	Engineering Report		
TR764.02	0	Load Test Plan / Report		
FTP764.03	0	Flight Test Plan / Report		
78410	0	Basket Assembly		
78411	0	Basket Body Assembly		
78412	0	Lid Assembly		
76421	0	Hoop		
76422	0	Hoop Assembly		
76423	0	Hoop Assembly		
78427	0	Placard		
78428	0	Placard		
69823	1	Lug		
49215	0	Spacer		
49216	0	Spacer		
36255	1	Handle Assembly		
36261	4	Handle Bar Assembly		
36262	1	Handle Bracket Assembly		
36271	1	Handle Lever		
36272	1	Basket Bracket		
36273	1	Lid Bracket		
36274	1	Bushing		
36275	2	Bushing		
36277	0	Handle Bar		
36278	2	Spring		
36280	2	Brace Assembly		
DATA APPROVED BY TRANSPORT CANADA				

CERTIFICATION


UNDER THE AUTHORITY VESTED IN ME BY THE DEPARTMENT OF TRANSPORT, I HEREBY CERTIFY THAT THE DATA LISTED ABOVE AND ON THE ATTACHED SHEETS NUMBERED Nil HAVE BEEN EXAMINED IN ACCORDANCE WITH ESTABLISHED PROCEDURES AND FOUND TO COMPLY, TO THE BEST OF MY KNOWLEDGE AND BELIEF WITH THE PERTINENT COMPLIANCE REQUIRMENTS.

I THEREFORE ☐ RECOMMEND FOR APPROVAL OF THESE DATA

☒ APPROVE THESE DATA

E. Burgoin, DAR 290M

FORM AE-100

DEPARTMENT OF TRANSPORT STATEMENT OF COMPLIANCE OF AIRCRAFT OR AIRCRAFT COMPONENTS WITH THE AIRWORTHINESS REQUIREMENTS		AE-100 No.: AE786-1 Initial Issue Date: 20 March, 2008 Revision: 0 Revision Date:	
Aircraft Mfr: Eurocopter Aircraft Model: AS350 & AS355 Series Registration: ALL ELIGIBLE		Model / Type Airplane <input type="checkbox"/> Helicopter <input checked="" type="checkbox"/> Appliance <input type="checkbox"/> Component <input type="checkbox"/>	
		Approval No.: SH08-16 Delegation No.: 290M Delegate Name: E. Burgoin Company: AERO Design Ltd.	
LIST OF APPROVED REPORTS AND DATA			
Document Number	Revision	Document Title	Compliance Status
DCL786-1 78601	0 0	Document Control List and all documents referred to therein Quick Release Cargo Basket Installation	As per Compliance Program, CP764, Revision 0
DATA APPROVED BY TRANSPORT CANADA			
ICA764.90	0	Instructions for Continued Airworthiness	
CERTIFICATION UNDER THE AUTHORITY VESTED IN ME BY THE DEPARTMENT OF TRANSPORT, I HEREBY CERTIFY THAT THE DATA LISTED ABOVE AND ON THE ATTACHED SHEETS NUMBERED Nil HAVE BEEN EXAMINED IN ACCORDANCE WITH ESTABLISHED PROCEDURES AND FOUND TO COMPLY, TO THE BEST OF MY KNOWLEDGE AND BELIEF WITH THE PERTINENT COMPLIANCE REQUIREMENTS.			
I THEREFORE <input type="checkbox"/> RECOMMEND FOR APPROVAL OF THESE DATA <input checked="" type="checkbox"/> APPROVE THESE DATA			
 E. Burgoin, DAR 290M			

FORM AE-100

DEPARTMENT OF TRANSPORT STATEMENT OF COMPLIANCE OF AIRCRAFT OR AIRCRAFT COMPONENTS WITH THE AIRWORTHINESS REQUIREMENTS		AE-100 No.: AE786-3 Initial Issue Date: 20 March, 2008 Revision: 0 Revision Date:	
Aircraft Mfr: Eurocopter Aircraft Model: AS350 & AS355 Series Registration: ALL ELIGIBLE	Model / Type Airplane <input type="checkbox"/> Helicopter <input checked="" type="checkbox"/> Appliance <input type="checkbox"/> Component <input type="checkbox"/>	Approval No.: SH08-16 Delegation No.: 290M Delegate Name: E. Burgoin Company: AERO Design Ltd.	
LIST OF APPROVED REPORTS AND DATA			
Document Number	Revision	Document Title	Compliance Status
DCL786-3	0	Document Control List and all documents referred to therein	As per Compliance Program, CP764, Revision 0
ER764.01	0	Engineering Report	
TR764.02	0	Load Test Plan / Report	
FTP764.03	0	Flight Test Plan / Report	
78620	0	Clamp Assembly	
78630	0	Low Beam Fabrication	
78631	0	High Beam Fabrication	
DATA APPROVED BY TRANSPORT CANADA			
CERTIFICATION UNDER THE AUTHORITY VESTED IN ME BY THE DEPARTMENT OF TRANSPORT, I HEREBY CERTIFY THAT THE DATA LISTED ABOVE AND ON THE ATTACHED SHEETS NUMBERED Nil HAVE BEEN EXAMINED IN ACCORDANCE WITH ESTABLISHED PROCEDURES AND FOUND TO COMPLY, TO THE BEST OF MY KNOWLEDGE AND BELIEF WITH THE PERTINENT COMPLIANCE REQUIREMENTS.			
I THEREFORE <input type="checkbox"/> RECOMMEND FOR APPROVAL OF THESE DATA <input checked="" type="checkbox"/> APPROVE THESE DATA			
 E. Burgoin, DAR 290M			

DOCUMENT CONTROL LIST

DOCUMENT NO.	DOCUMENT CONTENT	REVISION
FABRICATION DOCUMENTS		
70401	Open Forward End Modification	0
70402	Lid Door Modification	1
70403	Auxiliary Latch Modification	1
70404	Open Forward End Modification	1
70405	Lid Step Modification	1
70406	Open Forward End Modification	0
ENGINEERING DOCUMENTS		
ER704.02	Engineering Report	0
APPROVAL:	ORIGINAL DATE: 10 May 2006 REVISION DATE: 19 March, 2008	AERO DESIGN LTD. 2013 – 39 th Ave NE, Calgary, Alberta, T2E 6R7 Ph. (403) 250-8027 Fax. (403) 250-8333
	SHEET 1 OF 1	Cargo Basket Modifications
	DCL704	Rev. 2

DOCUMENT CONTROL LIST

DOCUMENT NO.	DOCUMENT CONTENT	REVISION
INSTALLATION DOCUMENTS		
76401	Quick Release Cargo Basket Installation	0
ICA764.90	Instructions for Continued Airworthiness	0
FMS764.91	Flight Manual Supplement	0
FABRICATION DOCUMENTS		
DCL764-3	Document Control List - Basket Assembly	0
ENGINEERING DOCUMENTS		
APPROVAL:	ORIGINAL DATE: 06 March 2008 REVISION DATE:	AERO DESIGN LTD. 2013 – 39 th Ave NE, Calgary, Alberta, T2E 6R7 Ph. (403) 250-8027 Fax. (403) 250-8333
	SHEET 1 OF 1	Eurocopter AS350 & AS355 Series Quick Release Cargo Basket Installation
	DCL764-1	Rev. 0

DOCUMENT CONTROL LIST

DOCUMENT NO.	DOCUMENT CONTENT	REVISION
INSTALLATION DOCUMENTS		
FABRICATION DOCUMENTS		
76410	Basket Assembly	0
76411	Basket Body Assembly	0
69812	Lid Assembly	1
76421	Hoop	0
76422	Hoop Assembly	0
76423	Hoop Assembly	0
76427	Placard	0
69823	Lug	1
69824	Rim	0
49212	Rim	0
49213	Lid Brace	1
49215	Spacer	0
49216	Spacer	0
36255	Handle Assembly	1
36261	Handle Bar Assembly	4
36262	Handle Bracket Assembly	1
36271	Handle Lever	1
36272	Basket Bracket	1
36273	Lid Bracket	1
36274	Bushing	1
36275	Bushing	2
36277	Handle Bar	0
36278	Spring	2
36280	Brace Assembly	2
ENGINEERING DOCUMENTS		
ER764.01	Engineering Report	0
TP764.02	Test Plan/Report	0
FTP764.03	Flight Test Plan/Report	0
APPROVAL:	ORIGINAL DATE: 06 March 2008 REVISION DATE:	AERO DESIGN LTD. 2013 – 39 th Ave NE, Calgary, Alberta, T2E 6R7 Ph. (403) 250-8027 Fax. (403) 250-8333
	SHEET 1 OF 1	Eurocopter AS350 & AS355 Series Quick Release Cargo Basket Basket Assembly
	DCL764-3	Rev. 0

DOCUMENT CONTROL LIST

DOCUMENT NO.	DOCUMENT CONTENT	REVISION
INSTALLATION DOCUMENTS		
77601	Quick Release Cargo Basket Installation	0
ICA764.90	Instructions for Continued Airworthiness	0
FMS764.91	Flight Manual Supplement	0
FABRICATION DOCUMENTS		
DCL776-3	Document Control List - Basket Assembly	0
ENGINEERING DOCUMENTS		
APPROVAL:	ORIGINAL DATE: 06 March 2008 REVISION DATE:	AERO DESIGN LTD. 2013 – 39 th Ave NE, Calgary, Alberta, T2E 6R7 Ph. (403) 250-8027 Fax. (403) 250-8333
	SHEET 1 OF 1	Eurocopter AS350 & AS355 Series Quick Release Cargo Basket Installation
	DCL776-1	Rev. 0

DOCUMENT CONTROL LIST

DOCUMENT NO.	DOCUMENT CONTENT	REVISION
INSTALLATION DOCUMENTS		
77602	Quick Release Cargo Basket Installation	0
ICA764.90	Instructions for Continued Airworthiness	0
FMS764.91	Flight Manual Supplement	0
FABRICATION DOCUMENTS		
DCL776-3	Document Control List - Basket Assembly	0
ENGINEERING DOCUMENTS		
APPROVAL:	ORIGINAL DATE: 06 March 2008 REVISION DATE:	AERO DESIGN LTD. 2013 – 39 th Ave NE, Calgary, Alberta, T2E 6R7 Ph. (403) 250-8027 Fax. (403) 250-8333
	SHEET 1 OF 1	Eurocopter AS350 & AS355 Series Quick Release Cargo Basket Installation
	DCL776-2	Rev. 0

DOCUMENT CONTROL LIST

DOCUMENT NO.	DOCUMENT CONTENT	REVISION
INSTALLATION DOCUMENTS		
FABRICATION DOCUMENTS		
77610	Basket Assembly	0
77611	Basket Body Assembly	0
77612	Lid Assembly	0
76421	Hoop	0
76422	Hoop Assembly	0
77627	Placard	0
77628	Placard	0
69823	Lug	1
49215	Spacer	0
49216	Spacer	0
36255	Handle Assembly	1
36261	Handle Bar Assembly	4
36262	Handle Bracket Assembly	1
36271	Handle Lever	1
36272	Basket Bracket	1
36273	Lid Bracket	1
36274	Bushing	1
36275	Bushing	2
36277	Handle Bar	0
36278	Spring	2
36280	Brace Assembly	2
ENGINEERING DOCUMENTS		
ER764.01	Engineering Report	0
TP764.02	Test Plan/Report	0
FTP764.03	Flight Test Plan/Report	0
APPROVAL:	ORIGINAL DATE: 06 March 2008 REVISION DATE:	AERO DESIGN LTD. 2013 – 39 th Ave NE, Calgary, Alberta, T2E 6R7 Ph. (403) 250-8027 Fax. (403) 250-8333
	SHEET 1 OF 1	Eurocopter AS350 & AS355 Series Quick Release Cargo Basket Basket Assembly
	DCL776-3	Rev. 0

DOCUMENT CONTROL LIST

DOCUMENT NO.	DOCUMENT CONTENT	REVISION
INSTALLATION DOCUMENTS		
78401	Quick Release Cargo Basket Installation	0
ICA764.90	Instructions for Continued Airworthiness	0
FMS764.91	Flight Manual Supplement	0
FABRICATION DOCUMENTS		
DCL784-3	Document Control List - Basket Assembly	0
ENGINEERING DOCUMENTS		
APPROVAL:	ORIGINAL DATE: 06 March 2008 REVISION DATE:	AERO DESIGN LTD. 2013 – 39 th Ave NE, Calgary, Alberta, T2E 6R7 Ph. (403) 250-8027 Fax. (403) 250-8333
	SHEET 1 OF 1	Eurocopter AS350 & AS355 Series Quick Release Cargo Basket Installation
	DCL784-1	Rev. 0

DOCUMENT CONTROL LIST

DOCUMENT NO.	DOCUMENT CONTENT	REVISION
INSTALLATION DOCUMENTS		
78402	Quick Release Cargo Basket Installation	0
ICA764.90	Instructions for Continued Airworthiness	0
FMS764.91	Flight Manual Supplement	0
FABRICATION DOCUMENTS		
DCL784-3	Document Control List - Basket Assembly	0
ENGINEERING DOCUMENTS		
APPROVAL:	ORIGINAL DATE: 06 March 2008 REVISION DATE:	AERO DESIGN LTD. 2013 – 39 th Ave NE, Calgary, Alberta, T2E 6R7 Ph. (403) 250-8027 Fax. (403) 250-8333
	SHEET 1 OF 1	Eurocopter AS350 & AS355 Series Quick Release Cargo Basket Installation
	DCL784-2	Rev. 0

DOCUMENT CONTROL LIST

DOCUMENT NO.	DOCUMENT CONTENT	REVISION
INSTALLATION DOCUMENTS		
FABRICATION DOCUMENTS		
78410	Basket Assembly	0
78411	Basket Body Assembly	0
78412	Lid Assembly	0
76421	Hoop	0
76422	Hoop Assembly	0
76423	Hoop Assembly	0
78427	Placard	0
78428	Placard	0
69823	Lug	1
49215	Spacer	0
49216	Spacer	0
36255	Handle Assembly	1
36261	Handle Bar Assembly	4
36262	Handle Bracket Assembly	1
36271	Handle Lever	1
36272	Basket Bracket	1
36273	Lid Bracket	1
36274	Bushing	1
36275	Bushing	2
36277	Handle Bar	0
36278	Spring	2
36280	Brace Assembly	2
ENGINEERING DOCUMENTS		
ER764.01	Engineering Report	0
TP764.02	Test Plan/Report	0
FTP764.03	Flight Test Plan/Report	0
APPROVAL:	ORIGINAL DATE: 06 March 2008 REVISION DATE:	AERO DESIGN LTD. 2013 – 39 th Ave NE, Calgary, Alberta, T2E 6R7 Ph. (403) 250-8027 Fax. (403) 250-8333
	SHEET 1 OF 1	Eurocopter AS350 & AS355 Series Quick Release Cargo Basket Basket Assembly
	DCL784-3	Rev. 0

DOCUMENT CONTROL LIST

DOCUMENT NO.	DOCUMENT CONTENT	REVISION
INSTALLATION DOCUMENTS		
78601	Basket Installation Provision	0
ICA764.90	Instructions for Continued Airworthiness	0
FABRICATION DOCUMENTS		
DCL786-3	Document Control List - Provision Assembly	0
ENGINEERING DOCUMENTS		
APPROVAL:	ORIGINAL DATE: 06 March 2008 REVISION DATE:	AERO DESIGN LTD. 2013 – 39 th Ave NE, Calgary, Alberta, T2E 6R7 Ph. (403) 250-8027 Fax. (403) 250-8333
	SHEET 1 OF 1	Eurocopter AS350 & AS355 Series Basket Provision Installation
	DCL786-1	Rev. 0

DOCUMENT CONTROL LIST

DOCUMENT NO.	DOCUMENT CONTENT	REVISION
INSTALLATION DOCUMENTS		
FABRICATION DOCUMENTS		
78620	Clamp Assembly	0
78630	Low Beam Fabrication	0
78631	High Beam Fabrication	0
ENGINEERING DOCUMENTS		
ER764.01	Engineering Report	0
TR764.02	Load Test Plan/Report	0
FTP764.03	Flight Test Plan/Report	0
APPROVAL:	<div> ORIGINAL DATE: 06 March 2008 REVISION DATE: </div> <div> AERO DESIGN LTD. 2013 – 39th Ave NE, Calgary, Alberta, T2E 6R7 Ph. (403) 250-8027 Fax. (403) 250-8333 </div>	
	<div>SHEET 1 OF 1</div> <div> Eurocopter AS350 & AS355 Series Basket Installation Provision Assembly </div>	
	DCL786-3	Rev. 0

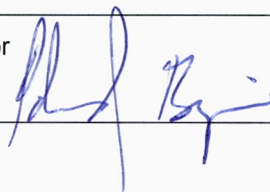
APPENDIX A – STATEMENT OF SUITABILITY FOR FLIGHT TEST

Aircraft Type/Model	EUROCOPTER AS350 B2
Registration	C-FTDE
Serial Number	2796
Description of Design Change(s)	INSTALLATION OF CARGO BASKETS
Design Drawings	76401 - Small Basket 78601 - Provisions 77601 - Med. Basket 7840 - Large Basket

Statement of Suitability for Flight Test

This is to certify that I have reviewed the subject design change and that I have reasonable assurance that compliance could be found with all applicable design requirements, except for those requirements that will be substantiated by flight-testing. I consider the aircraft to be safe for flight.

Regional Engineer, Aircraft Certification, or
Authorized Person



Date

10 MAR 2008

CONFORMITY INSPECTION RECORD

Applicant	Aeronautical Product				Title of Change
AERO Design Ltd.	Make	Model	Serial No.	Registration	Quick Release Cargo Basket
	Eurocopter	AS350 / AS355 Series	N/A	N/A	
Drawing No.	Applicant's Inspector		T.C. Inspection		Findings
	Signature	Date	Signature	Date	
Provisions	<i>[Signature]</i>	<i>Mar 10/08</i>			
78601 (Installation)	<i>Jeff Clarke</i>	<i>Mar 10/08</i>			
78620 (Clamps)	<i>Jeff Clarke</i>	<i>Mar 10/08</i>			HELICORLS NOT INSTALLED IN BARR WETS
78630 (Low Beam)	<i>Jeff Clarke</i>	<i>Mar 10/08</i>			
78631 (High Beam)	<i>Jeff Clarke</i>	<i>Mar 10/08</i>			
Medium Basket					
76401 (Installation)	<i>Jeff Clarke</i>	<i>Mar 10/08</i>			
76410 (Assy)	<i>Jeff Clarke</i>	<i>Mar 10/08</i>			LID BE NOT INSTALLED, NOT POWDER COATED
76411 (Body)	<i>Jeff Clarke</i>	<i>Mar 10/08</i>			NOT POWDER COATED
69812 (Lid)	* NO LID FABRICATED *				
Short Basket					
77601 (Installation)	<i>Jeff Clarke</i>	<i>Mar 10/08</i>			NO PLACARD
77610 (Assy)	<i>Jeff Clarke</i>	<i>Mar 10/08</i>			Older hoops, height is shorter, fab same
77611 (Body)	<i>Jeff Clarke</i>	<i>Mar 10/08</i>			NO PLACARD Hoop spacing changed.
77612 (Lid)	<i>Jeff Clarke</i>	<i>Mar 10/08</i>			BRACE SPACING CHANGED
Long Basket					
78401 (Installation)	<i>Jeff Clarke</i>	<i>Mar 10/08</i>			
78410 (Assy)	<i>Jeff Clarke</i>	<i>Mar 10/08</i>			No Placard
78411 (Body)	<i>Jeff Clarke</i>	<i>Mar 10/08</i>			old hoops, height is shorter, fab same
78412 (Lid)	<i>Jeff Clarke</i>	<i>Mar 10/08</i>			

APPLICANT'S ATTESTATION

I hereby confirm that the prototype installation for the subject

- ☒ MODIFICATION,
☐ REPAIR,
☐ TSO/AP-TC ARTICLE

is in conformity with the applicable installation drawing(s) listed above
and that necessary ground tests have been carried out.
[Please check (✓) the applicable box.]

Additional Information:

Signature: _____

Jeff Clark

* OLD HOOPS WERE USED FOR FIRST

PROTOTYPES. HEIGHT IS SHORTER,

SLOPE AND ATTACHMENTS REMAIN SAME.

SLIGHTLY SHORTER HOOPS HAVE NO EFFECT ON VALIDITY OF
LOAD TESTS *By*

SLIGHT DISCREPANCY IN HOOP SPACING HAS NO EFFECT ON
VALIDITY OF LOAD TEST *By*

TC INSPECTION

☒ ACCEPTABLE

☐ UNACCEPTABLE

All length baskets
and associated
equipment checked. Installation
of long basket on low beam on
stbd side of aircraft
satisfactory

Remarks:

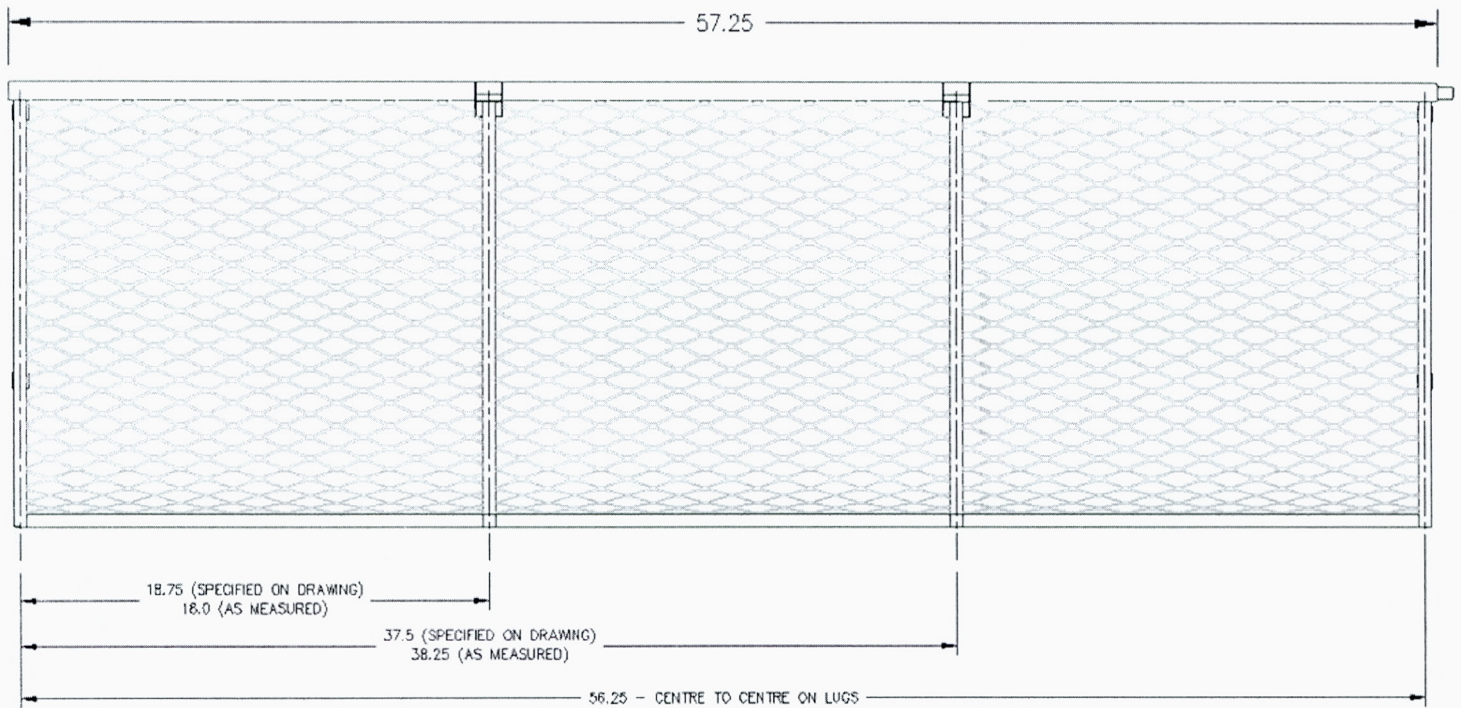
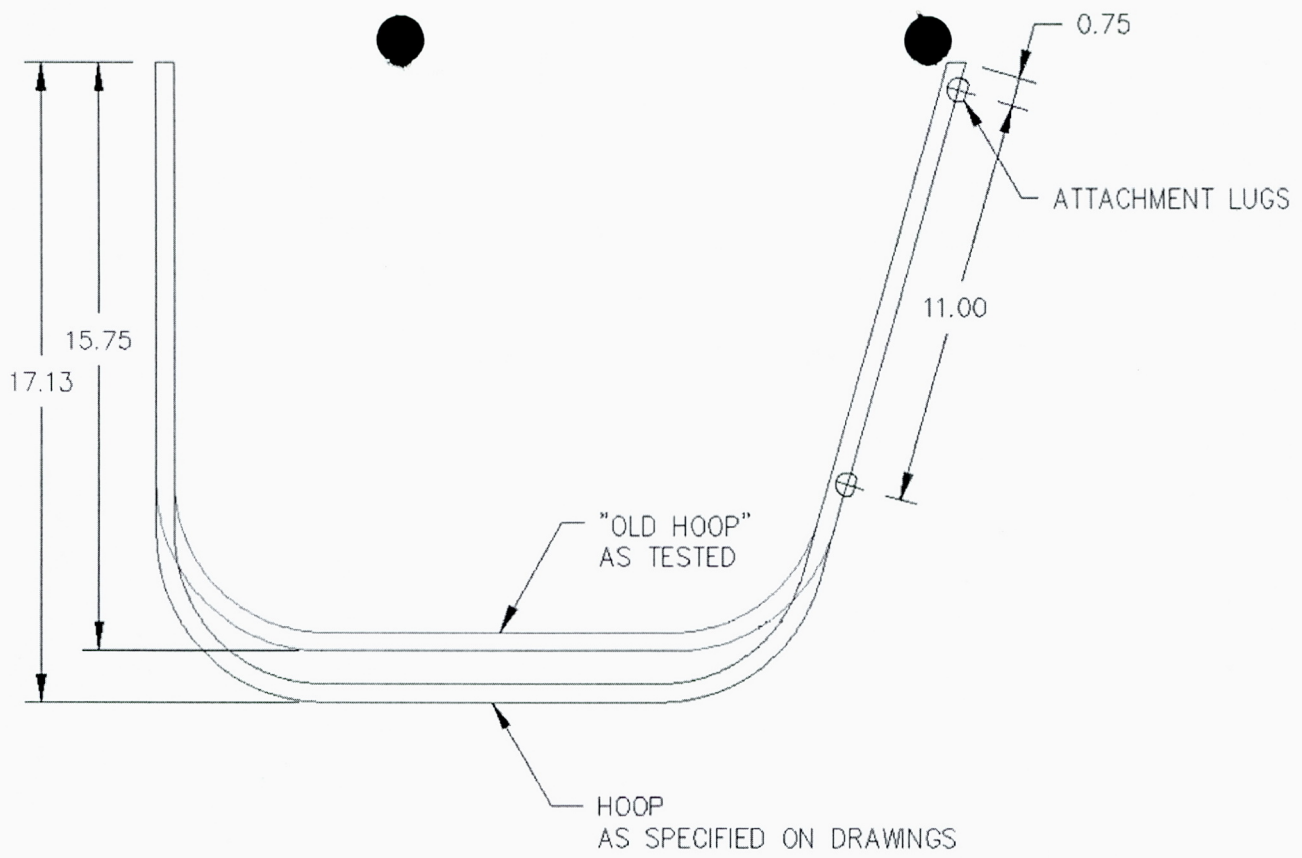
Signature: _____

MOB

M Stewart

RACH

18 March 2008



AERO Design Ltd.

GERRARD
SANDMAN
778 240 2867

**FLIGHT TEST PLAN
FTP764.03**

EUROCOPTER AS350

QUICK RELEASE CARGO BASKET

RESULTS #1

Prepared by: J. Clarke, CET

Approved by: E. Burgoin, P.Eng., DAR 290M

Revision 0, 26 February, 2008

AERO Design Ltd.
Engineering Consultants

2013 – 39th Avenue N.E., Calgary, Alberta T2E 6R7

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E-Mail: info@aerodesign.ca

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Revision 0
07 February 2008

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6.0	RECORDING OF RESULTS	5

1.0 INTRODUCTION

The Quick Release Ski Basket is mounted on the right or left side of the helicopter. The basket is made from steel tubing and expanded steel mesh. It is quickly detachable from the mounting beams that support it. The beams fasten to the cross tubes using a clamp fitting.

There are 3 different configurations of basket:

- Long: 96.5" long
- Medium: 75.75" long
- Short: 56.25" long

The baskets may be mounted in a low or high position using different attachment beams. The low position is required if the helicopter is fitted with "squirrel cheeks".

2.0 REFERENCE TEXT

AERO Design Ltd. Installation Drawings 76401, 77601, 78401, 78601

AERO Design Ltd. Flight Manual Supplement FMS764.91

Eurocopter AS350 Rotorcraft Flight Manual.

3.0 FLIGHT TEST OBJECTIVE

Flight testing of the Quick Release Ski Baskets is meant to demonstrate that the installation does not produce undesirable flutter or vibrations.

4.0 TEST PREPARATION

4.1 Instrument Calibration

The maintenance records of the test helicopter will be checked to ensure the airspeed indicator has been calibrated within the specified time period.

4.2 Equipment

The helicopter will be fitted with the Attachment Provisions in accordance with drawing 78601 and one of the Quick Release Ski Basket installations in accordance with drawing 76401, 77601, 78401 as applicable.

4.3 Flight Test Crew

Two or three crew members will be required for the test:

- 1) Pilot with training and experience appropriate to the task of testing this equipment.
- 2) Test observer, either a DAR or a qualified alternate appointed by him, beside the pilot.
- 3) (Optional) Test observer, appointed by the DAR, seated in the aft cabin to observe the basket.

All members of the crew will be equipped to communicate via intercom.

Seating arrangement of the observer(s) may be limited by loading requirements.

4.4 Documents

These test flights require a FLIGHT PERMIT issued by Transport Canada.

The draft Flight Manual Supplement shall be on board the aircraft.

The Pilot will familiarize himself with the contents of this Test Plan and the Flight Manual Supplement prior to flight.

4.5 Weight and Balance

The helicopter will be loaded with sufficient fuel and ballast to produce the following conditions for flight:

- A) GW and CG within limits specified in basic flight manual,
- B) Same GW and CG as in A), with short Ski Basket Installed (77601)
- C) Same GW and CG as in A), with medium Ski Basket Installed (76401)
- D) Same GW and CG as in A), with long Ski Basket Installed (78401)

Loading information specific to the Quick Release Ski Basket is contained in the Flight Manual Supplement, FMS764.91. The Ski Basket will be loaded to the placarded maximum (200 lbs for 76401 and 78401; 300 lbs for 77601).

For each case, all ballast in the cabin will be properly secured with cargo nets and/or tie-down straps.

EMPTY EXCEPT
AS NOTE.

5.0 FLIGHT TESTS

One flight is required for each of the conditions listed in 4.5 above.

The flights are to be conducted as follows:

Take off and establish cruise at 60 kts. Increase speed in 10 kt increments until V_D ($1.11 \times V_{NE}$) is reached. Maneuver carefully at speeds over V_{NE} . Record any unusual flutter or vibrations.

For AS350 B2:

$V_{NE} = 155$ kts

$V_D = 1.11 \times V_{NE} = 1.11 \times 155 \text{ kts} = 172$ kts

$V_{NE} = 140$ @ 5000 ft

$V_D = 154$ @ 5000 ft

at S.L.

C-ETOE
AS350 B2

TEMP 20000

V_D @ 5000 ft
154

6.0 RECORDING OF RESULTS

Check (✓) if acceptable.

	Airspeed (kts)											
Configuration	60	70	80	90	100	110	120	130	140	150	160	172
Baseline												
Right Side												
Short Basket (77601)	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
Med. Basket (76401)	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
Long Basket (78401)	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
Left Side												
Short Basket (77601)	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
Med. Basket (76401)												
Long Basket (78401)	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK

Observations:

300 LB.	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
---------	----	----	----	----	----	----	----	----	----	----	----	----

AERO Design Ltd.

**FLIGHT TEST PLAN
FTP764.03**

EUROCOPTER AS350

QUICK RELEASE CARGO BASKET

Prepared by: J. Clarke, CET

Approved by: E. Burgoin, P.Eng., DAR 290M

Revision 0, 26 February, 2008

AERO Design Ltd.
Engineering Consultants

2013 – 39th Avenue N.E., Calgary, Alberta T2E 6R7

Phone: (403) 250-8027

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E-Mail: info@aerodesign.ca

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There are 3 different configurations of basket:

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- Medium: 75.75" long
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The baskets may be mounted in a low or high position using different attachment beams. The low position is required if the helicopter is fitted with "squirrel cheeks".

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AERO Design Ltd. Installation Drawings 76401, 77601, 78401, 78601

AERO Design Ltd. Flight Manual Supplement FMS764.91

Eurocopter AS350 Rotorcraft Flight Manual.

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Flight testing of the Quick Release Ski Baskets is meant to demonstrate that the installation does not produce undesirable flutter or vibrations.

4.0 TEST PREPARATION

4.1 Instrument Calibration

The maintenance records of the test helicopter will be checked to ensure the airspeed indicator has been calibrated within the specified time period.

4.2 Equipment

The helicopter will be fitted with the Attachment Provisions in accordance with drawing 78601 and one of the Quick Release Ski Basket installations in accordance with drawing 76401, 77601, 78401 as applicable.

4.3 Flight Test Crew

Two or three crew members will be required for the test:

- 1) Pilot with training and experience appropriate to the task of testing this equipment.
- 2) Test observer, either a DAR or a qualified alternate appointed by him, beside the pilot.
- 3) (Optional) Test observer, appointed by the DAR, seated in the aft cabin to observe the basket.

All members of the crew will be equipped to communicate via intercom.

Seating arrangement of the observer(s) may be limited by loading requirements.

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These test flights require a FLIGHT PERMIT issued by Transport Canada.

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The helicopter will be loaded with sufficient fuel and ballast to produce the following conditions for flight:

- A) GW and CG within limits specified in basic flight manual,
- B) Same GW and CG as in A), with short Ski Basket Installed (77601)
- C) Same GW and CG as in A), with medium Ski Basket Installed (76401)
- D) Same GW and CG as in A), with long Ski Basket Installed (78401)

Loading information specific to the Quick Release Ski Basket is contained in the Flight Manual Supplement, FMS764.91.

For each case, all ballast in the cabin will be properly secured with cargo nets and/or tie-down straps.

5.0 FLIGHT TESTS

One flight is required for each of the conditions listed in 4.5 above.

The flights are to be conducted as follows:

Take off and establish cruise at 60 kts. Increase speed in 10 kt increments until V_D ($1.11 \times V_{NE}$) is reached. Maneuver carefully at speeds over V_{NE} . Record any unusual flutter or vibrations.

For AS350 B2:

$V_{NE} = 155 \text{ kts @ Sea Level} - 3 \text{ kts pre } 1000 \text{ ft.}$

Flights to take place between 5000 and 7000 ft.

$V_{NE} = 155 - (5 \times 3) = 140 \text{ kts}$

$V_D = 1.11 \times V_{NE} = 1.11 \times 140 \text{ kts} = 155 \text{ kts}$

6.0 RECORDING OF RESULTS

Check (✓) if acceptable.

Low Configuration:

	Airspeed (kts)									
Configuration	60	70	80	90	100	110	120	130	140	155
Right Side										
Short Basket (77601)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Med. Basket (76401)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Long Basket (78401)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Left Side										
Short Basket (77601)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Med. Basket (76401)	X	X	X	X	X	X	X	X	X	X
Long Basket (78401)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

High Configuration:

	Airspeed (kts)									
Configuration	60	70	80	90	100	110	120	130	140	155
Right Side										
Short Basket (77601)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Med. Basket (76401)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Long Basket (78401)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Left Side										
Short Basket (77601)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Med. Basket (76401)	X	X	X	X	X	X	X	X	X	X
Long Basket (78401)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Observations:

Medium basket (76401) not tested on the left side in the high or low configuration.

Basket only fits on the right side, an opposite basket it required on the left.

Short Basket (77601) was flown empty, and loaded with 300 lbs of lead shot on the left and right.

No vibrations or flutter noted in any configuration at any speed.

AERO Design Ltd.

FLIGHT TEST PLAN

FTP764.03

EUROCOPTER AS350

QUICK RELEASE CARGO BASKET

RESULTS #2

Prepared by: J. Clarke, CET

Approved by: E. Burgoin, P.Eng., DAR 290M

Revision 0, 26 February, 2008

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Revision 0
07 February 2008

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1.0 INTRODUCTION

The Quick Release Ski Basket is mounted on the right or left side of the helicopter. The basket is made from steel tubing and expanded steel mesh. It is quickly detachable from the mounting beams that support it. The beams fasten to the cross tubes using a clamp fitting.

There are 3 different configurations of basket:

- Long: 96.5" long
- Medium: 75.75" long
- Short: 56.25" long

The baskets may be mounted in a low or high position using different attachment beams. The low position is required if the helicopter is fitted with "squirrel cheeks".

2.0 REFERENCE TEXT

AERO Design Ltd. Installation Drawings 76401, 77601, 78401, 78601

AERO Design Ltd. Flight Manual Supplement FMS764.91

Eurocopter AS350 Rotorcraft Flight Manual.

3.0 FLIGHT TEST OBJECTIVE

Flight testing of the Quick Release Ski Baskets is meant to demonstrate that the installation does not produce undesirable flutter or vibrations.

4.0 TEST PREPARATION

4.1 Instrument Calibration

The maintenance records of the test helicopter will be checked to ensure the airspeed indicator has been calibrated within the specified time period.

4.2 Equipment

The helicopter will be fitted with the Attachment Provisions in accordance with drawing 78601 and one of the Quick Release Ski Basket installations in accordance with drawing 76401, 77601, 78401 as applicable.

4.3 Flight Test Crew

Two or three crew members will be required for the test:

- 1) Pilot with training and experience appropriate to the task of testing this equipment.
- 2) Test observer, either a DAR or a qualified alternate appointed by him, beside the pilot.
- 3) (Optional) Test observer, appointed by the DAR, seated in the aft cabin to observe the basket.

All members of the crew will be equipped to communicate via intercom.

Seating arrangement of the observer(s) may be limited by loading requirements.

4.4 Documents

These test flights require a FLIGHT PERMIT issued by Transport Canada.

The draft Flight Manual Supplement shall be on board the aircraft.

The Pilot will familiarize himself with the contents of this Test Plan and the Flight Manual Supplement prior to flight.

4.5 Weight and Balance

The helicopter will be loaded with sufficient fuel and ballast to produce the following conditions for flight:

- A) GW and CG within limits specified in basic flight manual,
- B) Same GW and CG as in A), with short Ski Basket Installed (77601)
- C) Same GW and CG as in A), with medium Ski Basket Installed (76401)
- D) Same GW and CG as in A), with long Ski Basket Installed (78401)

Loading information specific to the Quick Release Ski Basket is contained in the Flight Manual Supplement, FMS764.91. The Ski Basket will be loaded to the placarded maximum (200 lbs for 76401 and 78401; 300 lbs for 77601).

For each case, all ballast in the cabin will be properly secured with cargo nets and/or tie-down straps.

5.0 FLIGHT TESTS

One flight is required for each of the conditions listed in 4.5 above.

The flights are to be conducted as follows:

Take off and establish cruise at 60 kts. Increase speed in 10 kt increments until V_D ($1.11 \times V_{NE}$) is reached. Maneuver carefully at speeds over V_{NE} . Record any unusual flutter or vibrations.

For AS350 B2:

$V_{NE} = 155$ kts

$V_D = 1.11 \times V_{NE} = 1.11 \times 155 \text{ kts} = 172 \text{ kts}$

*LEFT SIDE
AS 350 B2*

6.0 RECORDING OF RESULTS

Check (✓) if acceptable.

	Airspeed (kts)											
Configuration	60	70	80	90	100	110	120	130	140	150	160	172
Baseline												
Right Side												
Short Basket (77601)	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK 155	
Med. Basket (76401)	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK 150	
Long Basket (78401)	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK 150	
Left Side												
Short Basket (77601)	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK 155	
Med. Basket (76401)	COUL'D NOT GET BASKET TO LOCK IN.											
Long Basket (78401)	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK 155	

Observations: OK | OK | OK | OK | OK | OK | OK | OK | OK | OK | OK | OK | 155

AS350 & AS355 SERIES HELICOPTERS

ROTORCRAFT FLIGHT MANUAL SUPPLEMENT

for the

INSTALLATION of the AERO DESIGN QUICK RELEASE CARGO BASKET

CARGO BASKET MODELS:

76401, 77601, 77602, 78401, 78402

Supplemental Type Certificate No. SH08-16

Sections I, II, III and IV of this document comprise the Transport Canada Approved sections of this Flight Manual Supplement. Compliance with Section I, Limitations, is mandatory.

Section V and any subsequent sections if present are Unapproved and are provided for information only.

The information and data contained in this Flight Manual Supplement supersede or supplement that contained in the basic Approved Flight Manual for the Eurocopter AS350 and AS355 Series Helicopters when fitted with the Quick Release Cargo Basket Installation. For limitations, procedures and performance not listed in this Flight Manual Supplement, refer to the Approved Flight Manual and other approved Flight Manual Supplements.

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Record of Revisions

Revision	Issue Date	Pages Revised	Date Inserted	By
0	25 Feb, 2008	None		

I LIMITATIONS

1. The maximum load in the AERO Design Ltd. Quick Release Cargo Basket Models 764 and 784 is 200 lb. (90.7 kg). The maximum load in the AERO Design Ltd. Quick Release Cargo Basket Model 776 is 300 lb. (135.7 kg).
2. Flight operations limited to VFR conditions with AERO Design Ltd. Quick Release Cargo Basket installed.
3. V_{NE} is unchanged from the basic rotorcraft.

II NORMAL PROCEDURES

1. Pre-flight inspections:
 - a) Ensure that all cargo stored in the cargo basket is properly tied down and secured for flight.
 - b) Ensure that the lid of cargo basket is closed and secured.
 - c) Ensure the basket is locked in position on the beams. Pull up on the forward and aft end of the basket to check.

CAUTION

It is possible to exceed the lateral centre of gravity limits of the rotorcraft under some loading conditions. Pilots must ensure that lateral C of G is within limits when loading the basket.

III EMERGENCY PROCEDURES

No change from basic Approved Flight Manual.

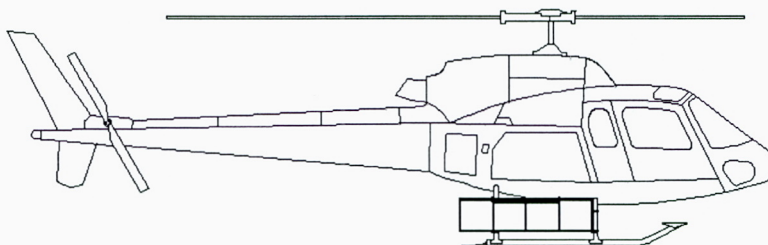
IV PERFORMANCE

1. Cruise performance and range will be reduced by approximately 10 percent with the Cargo Basket Installed.
2. Climb performance will be reduced by up to 150 fpm.

V WEIGHT AND BALANCE

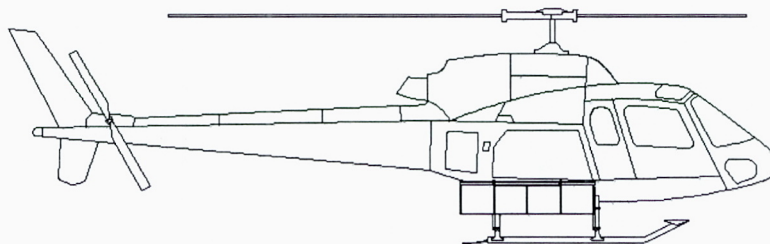
This section contains weight and balance information for cargo basket models 76401, 77601 and 78401. Each cargo basket model has multiple configurations. Refer to the weight and balance information applicable to basket model and configuration installed.

1. **MODEL 76401.** The following weight and balance is for the cargo basket installed in accordance with drawing 76401.



Quick Release Cargo Basket: Configuration 76401-01 (Low Mounted)

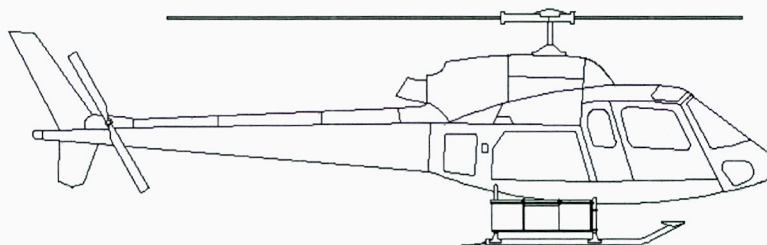
Item	Weight	Longitudinal		Lateral	
		Arm	Moment	Arm	Moment
76401-01 Basket Only ¹	45.0 lb	144.9 in	6520.5 in*lb	+/- 48.6 in	+/- 2187.5 in*lb
	20.4 kg	3680.5 mm	74941.5 mm*kg	+/- 1234.7 mm	+/- 25 140.8 mm*kg
Cargo ² (MAX)	200 lb	144.9 in	28 980 in*lb	+/- 48.6 in	+/- 9722 in*lb
	90.5 kg	3680.5 mm	333073.3 mm*kg	+/- 1234.7 mm	+/- 111 737.0 mm*kg



Quick Release Cargo Basket: Configuration 76401-02 (High Mounted)

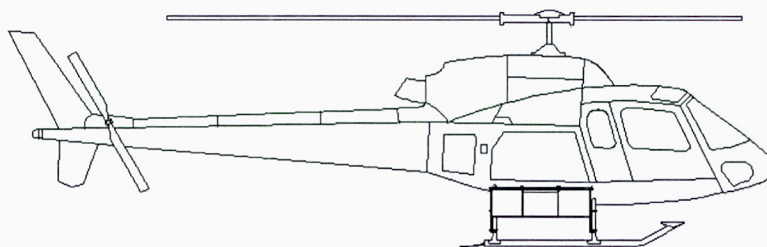
Item	Weight	Longitudinal		Lateral	
		Arm	Moment	Arm	Moment
76401-02 Basket Only ¹	45.0 lb	144.9 in	6520.5 in*lb	+/- 46.3 in	+/- 2084.9 in*lb
	20.4 kg	3680.5 mm	74 941.5 mm*kg	+/- 1176.8 mm	+/- 23 961.6 mm*kg
Cargo ² (MAX)	200 lb	144.9 in	28980 in*lb	+/- 46.3 in	+/- 9266.0 in*lb
	90.5 kg	3680.5 mm	333073.3 mm*kg	+/- 1176.8 mm	+/- 106 496.1 mm*kg

2. **MODEL 77601.** The following weight and balance is for the cargo basket installed in accordance with drawing 77601.



Quick Release Cargo Basket: Configuration 77601-01 (Low mounted)

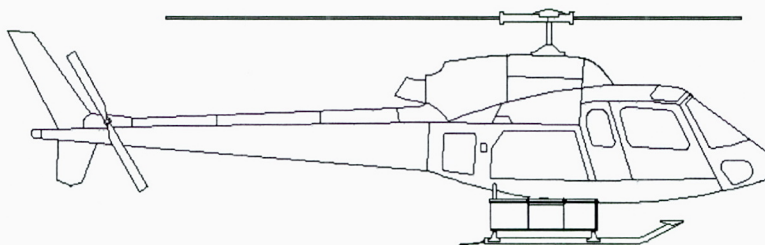
Item	Weight	Longitudinal		Lateral	
		Arm	Moment	Arm	Moment
77601-01 Basket Only ¹	35.0 lb	135.7 in	4749.5 in*lb	+/- 49.2 in	+/- 1723.4 in*lb
	15.8 kg	3446.8 mm	54 587.0 mm*kg	+/- 1250.7 mm	+/- 19 807.4 mm*kg
Cargo ² (MAX)	300 lb	135.7 in	40710.0 in*lb	+/- 49.2 in	+/- 14760.0 in*lb
	135.7 kg	3446.8 mm	467730.8 mm*kg	+/- 1250.7 mm	+/- 169720.0 mm*kg



Quick Release Cargo Basket: Configuration 77601-02 (High mounted)

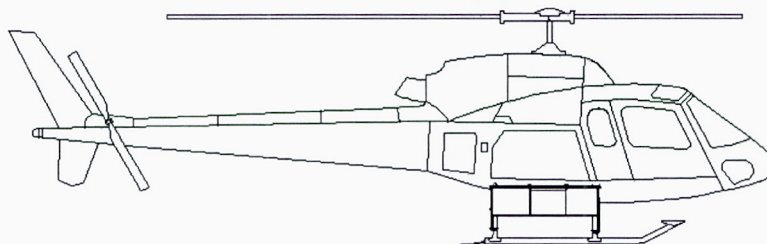
Item	Weight	Longitudinal		Lateral	
		Arm	Moment	Arm	Moment
77601-02 Basket Only ¹	35.0 lb	135.7 in	4749.5 in*lb	+/- 47.0 in	+/- 1643.6 in*lb
	15.8 kg	3446.8 mm	54 587.0 mm*kg	+/- 1192.8 mm	+/- 18 890.2 mm*kg
Cargo ² (MAX)	300 lb	135.7 in	40710.0 in*lb	+/- 47.0 in	+/- 14100.0 in*lb
	135.7 kg	3446.8 mm	467730.8 mm*kg	+/- 1192.8 mm	+/- 161863.0 mm*kg

3. **MODEL 77602.** The following weight and balance is for the cargo basket installed in accordance with drawing 77602.



Quick Release Cargo Basket: Configuration 77602-01 (Low mounted)

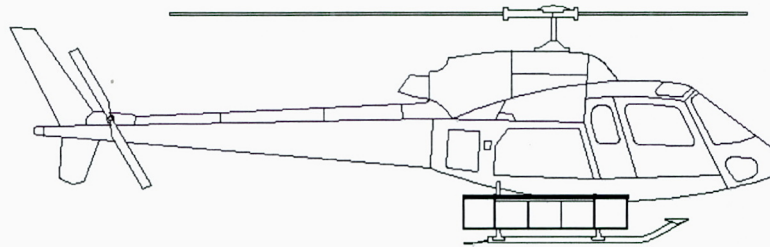
Item	Weight	Longitudinal		Lateral	
		Arm	Moment	Arm	Moment
77602-01 Basket Only ¹	36.2 lb	133.6 in	4836.3 in*lb	+/- 49.2 in	+/- 1781.0 in*lb
	16.4 kg	3393.4 mm	55 584.9 mm*kg	+/- 1249.7 mm	+/- 20 469.9 mm*kg
Cargo ² (MAX)	300 lb	133.6 in	40080.0 in*lb	+/- 49.2 in	+/- 14760.0 in*lb
	135.7 kg	3393.4 mm	460484.4 mm*kg	+/- 1249.7 mm	+/- 169584.3 mm*kg



Quick Release Cargo Basket: Configuration 77602-02 (High mounted)

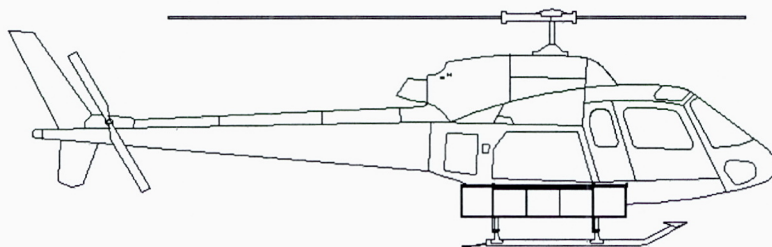
Item	Weight	Longitudinal		Lateral	
		Arm	Moment	Arm	Moment
77602-02 Basket Only ¹	36.2 lb	133.6 in	4836.3 in*lb	+/- 47.0 in	+/- 1700.0 in*lb
	16.4 kg	3393.4 mm	55 584.9 mm*kg	+/- 1192.8 mm	+/- 19 537.9 mm*kg
Cargo ² (MAX)	300 lb	133.6 in	40080.0 in*lb	+/- 47.0 in	+/- 14100.0 in*lb
	135.7 kg	3393.4 mm	460484.4 mm*kg	+/- 1192.8 mm	+/- 161863.0 mm*kg

4. **MODEL 78401.** The following weight and balance is for the cargo basket installed in accordance with drawing 78401.



Quick Release Cargo Basket: Configuration 78401-01 (Low Mounted)

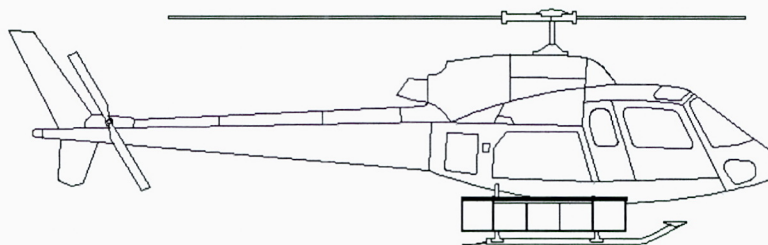
Item	Weight	Longitudinal		Lateral	
		Arm	Moment	Arm	Moment
78401-01 Basket Only ¹	55.0 lb	135.7 in	7463.5 in*lb	+/- 48.4 in	+/- 2659.8 in*lb
	24.9 kg	3446.8 mm	85 779.6 mm*kg	+/- 1228.3 mm	+/- 30 569.6 mm*kg
Cargo ² (MAX)	200 lb	135.7 in	27 140.0 in*lb	+/- 48.4 in	+/- 9672.0 in*lb
	90.5 kg	3446.8 mm	311 925.8 mm*kg	+/- 1228.3 mm	+/- 111 162.4 mm*kg



Quick Release Cargo Basket: Configuration 78401-02 (High Mounted)

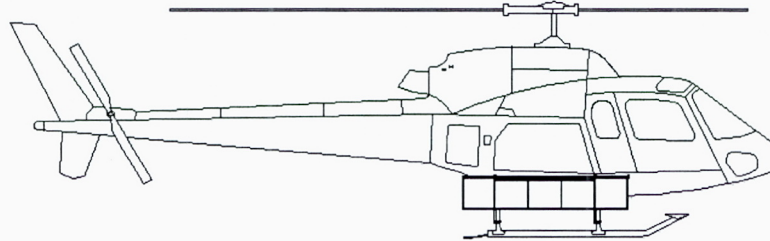
Item	Weight	Longitudinal		Lateral	
		Arm	Moment	Arm	Moment
78401-02 Basket Only ¹	55.0 lb	135.7 in	7463.5 in*lb	+/- 46.1 in	+/- 2534.4 in*lb
	24.9 kg	3446.8 mm	85 779.6 mm*kg	+/- 1170.4 mm	+/- 29 128.4 mm*kg
Cargo ² (MAX)	200 lb	135.7 in	27 140.0 in*lb	+/- 46.1 in	+/- 9216.0 in*lb
	90.5 kg	3446.8 mm	311 925.8 mm*kg	+/- 1170.4 mm	+/- 105 921.4 mm*kg

5. **MODEL 78402.** The following weight and balance is for the cargo basket installed in accordance with drawing 78402.



Quick Release Cargo Basket: Configuration 78402-01 (Low Mounted)

Item	Weight	Longitudinal		Lateral	
		Arm	Moment	Arm	Moment
78402-01 Basket Only ¹	60.0 lb	135.7 in	8142.0 in*lb	+/- 48.4 in	+/- 2901.6 in*lb
	27.1 kg	3446.8 mm	93 577.7 mm*kg	+/- 1228.3 mm	+/- 33 348.7 mm*kg
Cargo ² (MAX)	200 lb	135.7 in	35 850 in*lb	+/- 48.4 in	+/- 18 660 in*lb
	90.5 kg	3446.8 mm	27 140.0 mm*kg	+/- 1228.3 mm	+/- 111 162.4 mm*kg



Quick Release Cargo Basket: Configuration 78402-02 (High Mounted)

Item	Weight	Longitudinal		Lateral	
		Arm	Moment	Arm	Moment
78402-02 Basket Only ¹	60.0 lb	135.7 in	8142.0 in*lb	+/- 46.1 in	+/- 2764.8 in*lb
	27.1 kg	3446.8 mm	93 577.7 mm*kg	+/- 1170.4 mm	+/- 31 776.4 mm*kg
Cargo ² (MAX)	200 lb	135.7 in	27 140.0 in*lb	+/- 46.1 in	+/- 9216.0 in*lb
	90.5 kg	3446.8 mm	311 925.8 mm*kg	+/- 1170.4 mm	+/- 105 921.4 mm*kg

¹ Weight and balance is for Cargo Basket only. Mounting beams are not included since they should have been included in the basic rotorcraft weight and balance at time of initial installation.

² Longitudinal and Lateral moment arms are given only for the center of the Cargo Basket. Due to the length of the basket, some loading arrangements may require that actual moment arms be measured, to determine the correct moments about the center of gravity.

CAUTION:

It is possible to exceed lateral CG limits in some configurations.

VI INSTALLATION / REMOVAL INSTRUCTIONS

The beams are installed in accordance with 78601. The basket is installed in accordance with drawing 76401, 77601 or 78401, as applicable. Removal of the basket leaving the beams in place is an approved configuration for flight. Logbook entry indicating installation or removal of basket and which weight and balance amendment is in effect is required when basket is installed or removed.

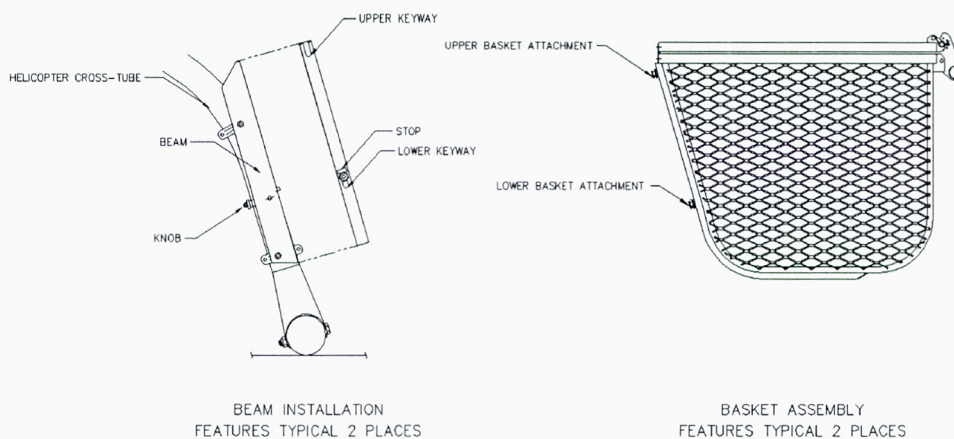


Figure 1 – Basket Attachment Features (Low beam installation shown. Beam attachment features typical for low and high beam installations)

1. Installation - Refer to Figure 1 and Figure 2.
 - a) Set basket upper attachment into upper keyway in forward and aft beams.
 - b) At forward attachment hoop, lift basket until lower attachment fitting hits stop.
 - c) Push fitting into keyway and slide basket down until locked.
 - d) Repeat step a,b and c for aft attachment hoop.

2. Removal - Refer to Figure 1 and Figure 2.

- a) Pull knob at bottom end of forward beam and lift basket until lower attachment fitting is free of keyway. Keep upper basket attachment in keyway on beam.
- b) Pull knob at bottom end of aft beam and lift basket until lower attachment fitting is free of keyway. Keep upper basket attachment in keyway on beam.
- c) Lift basket until upper attachments are out of keyways on both beams and remove basket from helicopter

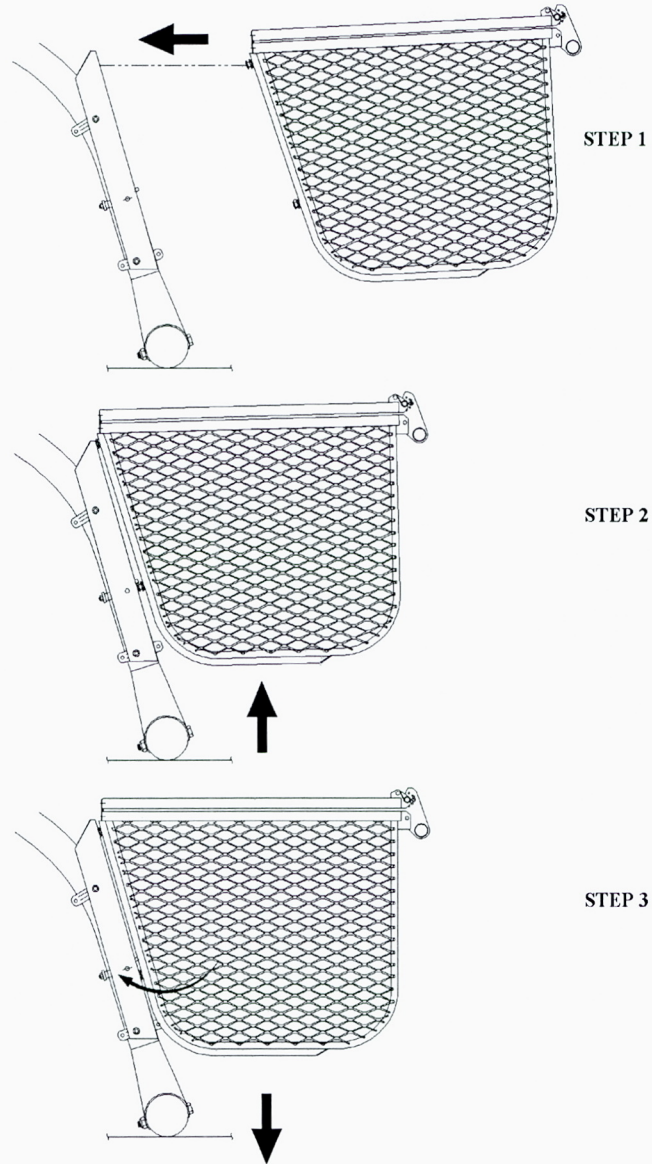


Figure 2 – Basket Attachment Steps (Low basket installation shown.
Installation instructions typical for low and high basket installation).

AERO Design Ltd.

ENGINEERING REPORT

ER764.01

QUICK RELEASE CARGO BASKETS

EUROCOPTER AS350 / AS355 SERIES

Prepared by: R. Rathwell

Approved by: E. Burgoin, P.Eng., DAR 290M

Revision 0

Date 29 February, 2008

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1.0 INTRODUCTION

The various AERO Design Ltd. quick release cargo baskets developed for the AS350 and AS355 Series of Helicopters has been developed to meet the requirements of various flight missions. The cargo baskets mount onto helicopter landing gear cross-tubes. The allowable load in the baskets is 200 lbs (medium and long baskets) or 300 lbs (short baskets).

This document shows the installation of the various cargo baskets are in compliance with Federal Aviation Regulations detailed in the Aero Design Ltd. Compliance Program CP764.

2.0 REFERENCE TEXT

AERO Design Ltd. Drawings 76401
AERO Design Ltd. Drawings 77601, 77602
AERO Design Ltd. Drawings 78401, 78402
AERO Design Ltd. Drawings 78601
AERO Design Ltd. Test Report TR362.02
AERO Design Ltd. Test Report TR764.02
AERO Design Ltd. Test Report TR751.02
MIL-HDBK-5J

3.0 BASIS OF CERTIFICATION

AS350 Series and AS355 Series: H-83/H-87

FAR 27, Amendment 27-20, plus select sections of later Amendments (AS355NP basis of certification).

This installation:

FAR 27, Amendment 27-20, plus select sections of later Amendments (AS355NP basis of certification).

4.0 APPLICABILITY OF AIRWORTHINESS DIRECTIVES

Airworthiness Directives applicable to the AS350 and AS355 series were reviewed and none were found to affect this project.

5.0 LOADS

AS350 Series and AS355 Series, FAR 27:

FAR 27.561(b)(3)

Ultimate Upward Emergency Landing Load Factor: $n_{e_up} := 1.5$

Ultimate Forward Emergency Landing Load Factor: $n_{e_fwd} := 4.0$

Ultimate Sideward Emergency Landing Load Factor: $n_{e_side} := 2.0$

Ultimate Downward Emergency Landing Load Factor: $n_{e_down} := 4.0$

FAR 27.625 Fitting Factor (does not apply to articles being tested): $n_{ff} := 1.15$

FAR 27.303 Safety Factor: $n_{sf} := 1.5$

FAR 27.337(a) Limit Positive Maneuvering Load Factor: $n_{man} := 3.5$

$n_{man_ult} := n_{man} \cdot n_{sf}$ Ultimate Positive Maneuvering Load Factor: $n_{man_ult} = 5.25$

Limit Negative Maneuvering Load Factor: $n_{man_neg} := -1.0$

$n_{man_neg_u} := n_{man_neg} \cdot n_{sf}$ Ultimate Negative Maneuvering Load Factor: $n_{man_neg_u} = -1.5$

CRITICAL ULTIMATE LOAD FACTORS:

Downward: Ultimate Positive Maneuvering Load Factor: $n_{man_ult} = 5.25$

Forward: Ultimate Forward Emergency Landing Load Factor: $n_{e_fwd} = 4$

Sideward: Ultimate Sideward Emergency Landing Load Factor: $n_{e_side} = 2$

Upward: Ultimate Upward Emergency Landing Load Factor: $n_{e_up} = 1.5$

Note: The basket is mounted below and to one side of the cabin. Forward deflection or failure in the emergency landing condition does not endanger the occupants. Likewise, Sideward and Upward deflection or failure of the basket in the emergency landing condition do not endanger the occupants.

Sideward and Upward Load Factors are used in the tests to ensure that the lid of the basket does not open in flight.

5.1 Inertia Loads

There are multiple lengths of baskets to be produced. The length determines the type of construction of the basket. There are 2 lengths of long and short baskets. The longer of each is used to determine the inertia loads because of their higher weight.

5.1.1 Cargo Basket 78401 / 78402 (Long Basket)

$W_{\text{basket}} := 60 \text{ lbf}$	Weight of largest basket configuration -78402 (97" long)
$W_{\text{cargo}} := 200 \text{ lbf}$	Weight of cargo (max)
$P_{\text{basket}} := W_{\text{basket}} + W_{\text{cargo}}$	
$P_{\text{basket}} = 260 \text{ lbf}$	Combined weight of basket and cargo
$P_{\text{lim_man}} := P_{\text{basket}} \cdot n_{\text{man}}$	
$P_{\text{lim_man}} = 910 \text{ lbf}$	Limit maneuvering load
$P_{\text{ult_man}} := P_{\text{basket}} \cdot n_{\text{man_ult}}$	
$P_{\text{ult_man}} = 1365 \text{ lbf}$	Ultimate maneuvering load
$P_{\text{lim_cargo_neg}} := W_{\text{cargo}} \cdot n_{\text{man_neg}}$	
$P_{\text{lim_cargo_neg}} = -200 \text{ lbf}$	Limit negative maneuvering load due to cargo
$P_{\text{ult_cargo_neg}} := W_{\text{cargo}} \cdot n_{\text{man_neg_u}}$	
$P_{\text{ult_cargo_neg}} = -300 \text{ lbf}$	Ultimate negative maneuvering load due to cargo

5.1.2 Cargo Basket 76401 (Medium Basket)

$W_{\text{basket}} := 45 \text{ lbf}$	Weight of medium basket configuration -76401 (75.75" long)
$W_{\text{cargo}} := 200 \text{ lbf}$	Weight of cargo (max)
$P_{\text{basket}} := W_{\text{basket}} + W_{\text{cargo}}$	
$P_{\text{basket}} = 245 \text{ lbf}$	Combined weight of basket and cargo
$P_{\text{lim_man}} := P_{\text{basket}} \cdot n_{\text{man}}$	
$P_{\text{lim_man}} = 858 \text{ lbf}$	Limit maneuvering load
$P_{\text{ult_man}} := P_{\text{basket}} \cdot n_{\text{man_ult}}$	
$P_{\text{ult_man}} = 1286 \text{ lbf}$	Ultimate maneuvering load
$P_{\text{lim_cargo_neg}} := W_{\text{cargo}} \cdot n_{\text{man_neg}}$	
$P_{\text{lim_cargo_neg}} = -200 \text{ lbf}$	Limit negative maneuvering load due to cargo
$P_{\text{ult_cargo_neg}} := W_{\text{cargo}} \cdot n_{\text{man_neg_u}}$	
$P_{\text{ult_cargo_neg}} = -300 \text{ lbf}$	Ultimate negative maneuvering load due to cargo

5.1.3 Cargo Basket 77601 / 77602 (Short Basket)

200 lbs cargo:

$W_{\text{basket}} := 37 \text{ lbf}$ Weight of short basket configuration -77602 (61.25" long)

$W_{\text{cargo}} := 200 \text{ lbf}$ Weight of cargo (max)

$P_{\text{basket}} := W_{\text{basket}} + W_{\text{cargo}}$

$P_{\text{basket}} = 237 \text{ lbf}$ Combined weight of basket and cargo

$P_{\text{lim_man}} := P_{\text{basket}} \cdot n_{\text{man}}$

$P_{\text{lim_man}} = 830 \text{ lbf}$ Limit maneuvering load

$P_{\text{ult_man}} := P_{\text{basket}} \cdot n_{\text{man_ult}}$

$P_{\text{ult_man}} = 1244 \text{ lbf}$ Ultimate maneuvering load

$P_{\text{lim_cargo_neg}} := W_{\text{cargo}} \cdot n_{\text{man_neg}}$

$P_{\text{lim_cargo_neg}} = -200 \text{ lbf}$ Limit negative maneuvering load due to cargo

$P_{\text{ult_cargo_neg}} := W_{\text{cargo}} \cdot n_{\text{man_neg_u}}$

$P_{\text{ult_cargo_neg}} = -300 \text{ lbf}$ Ultimate negative maneuvering load due to cargo

300 lbs cargo:

$W_{\text{basket}} := 37 \text{ lbf}$ Weight of short basket configuration -77602 (61.25" long)

$W_{\text{cargo}} := 300 \text{ lbf}$ Weight of cargo (max)

$P_{\text{basket}} := W_{\text{basket}} + W_{\text{cargo}}$

$P_{\text{basket}} = 337 \text{ lbf}$ Combined weight of basket and cargo

$P_{\text{lim_man}} := P_{\text{basket}} \cdot n_{\text{man}}$

$P_{\text{lim_man}} = 1180 \text{ lbf}$ Limit maneuvering load

$P_{\text{ult_man}} := P_{\text{basket}} \cdot n_{\text{man_ult}}$

$P_{\text{ult_man}} = 1769 \text{ lbf}$ Ultimate maneuvering load

$P_{\text{lim_cargo_neg}} := W_{\text{cargo}} \cdot n_{\text{man_neg}}$

$P_{\text{lim_cargo_neg}} = -300 \text{ lbf}$ Limit negative maneuvering load due to cargo

$P_{\text{ult_cargo_neg}} := W_{\text{cargo}} \cdot n_{\text{man_neg_u}}$

$P_{\text{ult_cargo_neg}} = -450 \text{ lbf}$ Ultimate negative maneuvering load due to cargo

5.2 Drag Load

Constants:

$$\rho := 0.002378 \frac{\text{slug}}{\text{ft}^3}$$

Density of air at Sea Level.

$$V_{ne} := 155 \text{ knots}$$

Never-Exceed-Speed of AS350B3.
(Ref. AS350 TCDS)
(Highest of AS350/AS355 Series)

$$V_d := \frac{V_{ne}}{0.9}$$

$$V_d = 172 \text{ knots}$$

Design Dive Speed of AS350B3

5.2.1 Cargo Basket 78401 / 78402 (Long Basket)

$$l_{\text{basket}} := 97 \text{ in}$$

Length of basket.

$$w_{\text{basket}} := 22.5 \text{ in}$$

Width of basket

$$h_{\text{basket}} := 19.25 \text{ in}$$

Height of basket.

$$A_f := 376 \text{ in}^2$$

Frontal Area of basket.

$$A_p := l_{\text{basket}} \cdot w_{\text{basket}}$$

$$A_p = 2183 \text{ in}^2$$

Planar Area of basket.

$$\frac{l_{\text{basket}}}{w_{\text{basket}}} = 4.3$$

Fineness ratio of basket

$$C_{Do} := 1.1$$

Drag Coefficient of Basket, (overestimated)
(Ref. Hoerner, Fluid Dynamic Drag, Figure 22).

$$P_{\text{drag}} := \frac{\rho}{2} \cdot V_d^2 \cdot A_f \cdot C_{Do}$$

$$P_{\text{drag}} = 289 \text{ lbf}$$

Limit Drag on basket.

$$P_{\text{drag_ult}} := P_{\text{drag}} \cdot n_{sf}$$

$$P_{\text{drag_ult}} = 433 \text{ lbf}$$

Ultimate Drag load on basket

$$AC_{\text{drag}} := 48.4 \text{ in}$$

Lateral Aerodynamic Center of basket.
(Low configuration)

5.2.2 Cargo Basket 76401 (Medium Basket)

$l_{\text{basket}} := 75.75 \text{ in}$	Length of basket.
$w_{\text{basket}} := 22.5 \text{ in}$	Width of basket
$h_{\text{basket}} := 19.25 \text{ in}$	Height of basket.
$A_f := 376 \text{ in}^2$	Frontal Area of basket.
$A_p := l_{\text{basket}} \cdot w_{\text{basket}}$	
$A_p = 1704 \text{ in}^2$	Planar Area of basket.
$\frac{l_{\text{basket}}}{w_{\text{basket}}} = 3.4$	Fineness ratio of basket
$C_{Do} := 1.1$	Drag Coefficient of Basket, (overestimated) (Ref. Hoerner, Fluid Dynamic Drag, Figure 22).
$P_{\text{drag}} := \frac{\rho}{2} \cdot V_d^2 \cdot A_f \cdot C_{Do}$	
$P_{\text{drag}} = 289 \text{ lbf}$	Limit Drag on basket.
$P_{\text{drag_ult}} := P_{\text{drag}} \cdot n_{sf}$	
$P_{\text{drag_ult}} = 433 \text{ lbf}$	Ultimate Drag load on basket
$AC_{\text{drag}} := 48.4 \text{ in}$	Lateral Aerodynamic Center of basket. (Low configuration)

5.2.3 Cargo Basket 77601 / 77602 (Short Basket)

$l_{\text{basket}} := 61.25 \text{ in}$	Length of basket.
$w_{\text{basket}} := 22.5 \text{ in}$	Width of basket
$h_{\text{basket}} := 19.25 \text{ in}$	Height of basket.
$A_f := 362 \text{ in}^2$	Frontal Area of basket.
$A_p := l_{\text{basket}} \cdot w_{\text{basket}}$	
$A_p = 1378 \text{ in}^2$	Planar Area of basket.
$\frac{l_{\text{basket}}}{w_{\text{basket}}} = 2.7$	Fineness ratio of basket

$$C_{Do} := 1.1$$

Drag Coefficient of Basket, (overestimated)
(Ref. Hoerner, Fluid Dynamic Drag, Figure 22).

$$P_{drag} := \frac{\rho}{2} \cdot V_d^2 \cdot A_f \cdot C_{Do}$$

$$P_{drag} = 278 \text{ lbf}$$

Limit Drag on basket.

$$P_{drag_ult} := P_{drag} \cdot n_{sf}$$

$$P_{drag_ult} = 417 \text{ lbf}$$

Ultimate Drag load on basket

$$AC_{drag} := 48.4 \text{ in}$$

Lateral Aerodynamic Center of basket.
(Low configuration, furthest outboard)

6.0 STRUCTURAL COMPLIANCE

6.1 Positive Maneuvering and Drag Condition

Structural compliance of the installations for the positive maneuvering and drag condition is shown by test. Refer to Test Report TR764.02 for results.

6.2 Forward Emergency Landing Condition

The basket is installed below and to the side of the cabin. Deflection or failure in a forward direction does not endanger occupants of the cabin and does not impede egress.

6.3 Upward Emergency Landing Condition

The lid must remain closed in the upward emergency landing condition. This was demonstrated for 300 lb cargo load in TR751.02. The handle and hinge configurations tested in TR751.02 are identical to this installation. The upward emergency landing condition has been demonstrated.

6.4 Sideward Emergency Landing Condition

The handle must remain latched in the sideward emergency landing condition. This was demonstrated in TR362.02. The handle configuration tested in TR362.02 is identical to this installation. The sideward emergency landing condition has been demonstrated.

7.0 COMPLIANCE WITH FAR 27.1387 AND 27.1401

See Figure 1.

The anti-collision strobe light is located on the top of the vertical stabilizer (A). The position lights are located on the top of the cabin, the tips of the horizontal stabilizer and the end of the tailboom (B). The cargo basket installation does not block any of these lights.

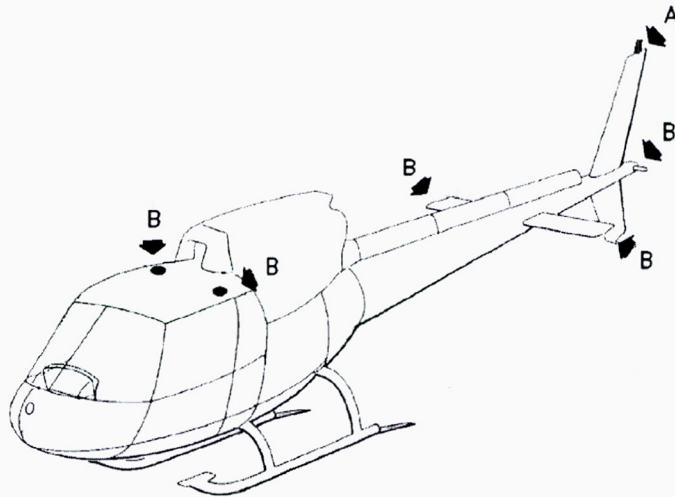


Figure 1 – Position / Anti-Collision Light Locations

AERO Design Ltd.

**TEST REPORT
TR764.02**

**QUICK RELEASE CARGO BASKET
EUROCOPTER AS350 SERIES, AS355 SERIES**

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Prepared by: J. Clarke

Revision 0
Date: 29 February 2008

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1.0 INTRODUCTION

This plan shall demonstrate structural compliance for the Eurocopter AS350/355 Series quick release cargo basket in the positive maneuvering and drag condition.

2.0 REFERENCE

AERO Design Ltd. Engineering Report ER764.01

AC 43.13-2A Chapter 1 Paragraph 3

3.0 LOADS

AS350 Series and AS355 Series, FAR 27:

FAR 27.561(b)(3)

Ultimate Upward Emergency Landing Load Factor:	$n_{e_up} := 1.5$
Ultimate Forward Emergency Landing Load Factor:	$n_{e_fwd} := 4.0$
Ultimate Sideward Emergency Landing Load Factor:	$n_{e_side} := 2.0$
Ultimate Downward Emergency Landing Load Factor:	$n_{e_down} := 4.0$

FAR 27.625 Fitting Factor (does not apply to articles being tested): $n_{ff} := 1.15$

FAR 27.303 Safety Factor: $n_{sf} := 1.5$

FAR 27.337(a)

	Limit Positive Maneuvering Load Factor:	$n_{man} := 3.5$
$n_{man_ult} := n_{man} \cdot n_{sf}$	Ultimate Positive Maneuvering Load Factor:	$n_{man_ult} = 5.25$

	Limit Negative Maneuvering Load Factor:	$n_{man_neg} := -1.0$
$n_{man_neg_u} := n_{man_neg} \cdot n_{sf}$	Ultimate Negative Maneuvering Load Factor:	$n_{man_neg_u} = -1.5$

CRITICAL ULTIMATE LOAD FACTORS:

Downward:	Ultimate Positive Maneuvering Load Factor:	$n_{man_ult} = 5.25$
Forward:	Ultimate Forward Emergency Landing Load Factor:	$n_{e_fwd} = 4$
Sideward:	Ultimate Sideward Emergency Landing Load Factor:	$n_{e_side} = 2$
Upward:	Ultimate Upward Emergency Landing Load Factor:	$n_{e_up} = 1.5$

This report only deals with the positive maneuvering condition.

3.1 Inertia Loads

3.1.1 Cargo Basket 78401 / 78402

$W_{\text{basket}} := 60 \text{ lbf}$ Weight of largest basket configuration -78402 (97" long)

$W_{\text{cargo}} := 200 \text{ lbf}$ Weight of cargo (max)

$P_{\text{basket}} := W_{\text{basket}} + W_{\text{cargo}}$

$P_{\text{basket}} = 260 \text{ lbf}$ Combined weight of basket and cargo

$P_{\text{lim_man}} := P_{\text{basket}} \cdot n_{\text{man}}$

$P_{\text{lim_man}} = 910 \text{ lbf}$ Limit maneuvering load

$P_{\text{ult_man}} := P_{\text{basket}} \cdot n_{\text{man_ult}}$

$P_{\text{ult_man}} = 1365 \text{ lbf}$ Ultimate maneuvering load

3.1.2 Cargo Basket 76401

$W_{\text{basket}} := 45 \text{ lbf}$ Weight of medium basket configuration -76401 (75.75" long)

$W_{\text{cargo}} := 200 \text{ lbf}$ Weight of cargo (max)

$P_{\text{basket}} := W_{\text{basket}} + W_{\text{cargo}}$

$P_{\text{basket}} = 245 \text{ lbf}$ Combined weight of basket and cargo

$P_{\text{lim_man}} := P_{\text{basket}} \cdot n_{\text{man}}$

$P_{\text{lim_man}} = 858 \text{ lbf}$ Limit maneuvering load

$P_{\text{ult_man}} := P_{\text{basket}} \cdot n_{\text{man_ult}}$

$P_{\text{ult_man}} = 1286 \text{ lbf}$ Ultimate maneuvering load

3.1.3 Cargo Basket 77601 / 77602

$W_{\text{basket}} := 37 \text{ lbf}$ Weight of short basket configuration -77602 (61.25" long)

$W_{\text{cargo}} := 200 \text{ lbf}$ Weight of cargo (max)

$P_{\text{basket}} := W_{\text{basket}} + W_{\text{cargo}}$

$P_{\text{basket}} = 237 \text{ lbf}$ Combined weight of basket and cargo

$P_{\text{lim_man}} := P_{\text{basket}} \cdot n_{\text{man}}$

$P_{\text{lim_man}} = 830 \text{ lbf}$ Limit maneuvering load

$P_{\text{ult_man}} := P_{\text{basket}} \cdot n_{\text{man_ult}}$

$P_{\text{ult_man}} = 1244 \text{ lbf}$ Ultimate maneuvering load

Increased cargo weight – 300 lbs max

$$W_{\text{basket}} := 37\text{ lbf}$$

Weight of short basket configuration -77602 (61.25" long)

$$W_{\text{cargo}} := 300\text{ lbf}$$

Weight of cargo (max)

$$P_{\text{basket}} := W_{\text{basket}} + W_{\text{cargo}}$$

$$P_{\text{basket}} = 337\text{ lbf}$$

Combined weight of basket and cargo

$$P_{\text{lim_man}} := P_{\text{basket}} \cdot n_{\text{man}}$$

$$P_{\text{lim_man}} = 1180\text{ lbf}$$

Limit maneuvering load

$$P_{\text{ult_man}} := P_{\text{basket}} \cdot n_{\text{man_ult}}$$

$$P_{\text{ult_man}} = 1769\text{ lbf}$$

Ultimate maneuvering load

3.2 Drag Loads

Constants:

$$\rho := 0.002378 \frac{\text{slug}}{\text{ft}^3}$$

Density of air at Sea Level.

$$V_{\text{ne}} := 155\text{ knots}$$

Never-Exceed-Speed of AS350B3.
(Ref. AS350 TCDS)
(Highest of AS350/AS355 Series)

$$V_d := \frac{V_{\text{ne}}}{0.9}$$

$$V_d = 172\text{ knots}$$

Design Dive Speed of AS350B3

Cargo Basket 78401 / 78402:

$$l_{\text{basket}} := 97\text{ in}$$

Length of basket.

$$w_{\text{basket}} := 22.5\text{ in}$$

Width of basket

$$h_{\text{basket}} := 19.25\text{ in}$$

Height of basket.

$$A_f := 376\text{ in}^2$$

Frontal Area of basket.

$$A_p := l_{\text{basket}} \cdot w_{\text{basket}}$$

$$A_p = 2183\text{ in}^2$$

Planar Area of basket.

$$\frac{l_{\text{basket}}}{w_{\text{basket}}} = 4.3$$

Fineness ratio of basket

$$C_{Do} := 1.1$$

Drag Coefficient of Basket, (overestimated)
(Ref. Hoerner, Fluid Dynamic Drag, Figure 22).

$$P_{\text{drag}} := \frac{\rho}{2} \cdot V_d^2 \cdot A_f \cdot C_{D0}$$

$$P_{\text{drag}} = 289 \text{ lbf}$$

Limit Drag on basket.

$$P_{\text{drag_ult}} := P_{\text{drag}} \cdot n_{sf}$$

$$P_{\text{drag_ult}} = 433 \text{ lbf}$$

Ultimate Drag load on basket

$$AC_{\text{drag}} := 48.4 \text{ in}$$

Lateral Aerodynamic Center of basket.
(Low configuration)

Cargo Basket 78401 / 78402 have the largest frontal area. This drag will be used in all of the tests.

4.0 LOAD TEST PLAN

To test the basket and beams, a set of AS350 landing gear cross tubes are assembled, and the cargo basket provisions installed in accordance with drawing 78601. The basket is then installed on the provisions in accordance with drawing 78401/78402, 77601/77602, 76401 as applicable.

4.1 Positive Maneuvering / Drag Condition

4.1.1 Limit Load

The basket shall be loaded with bags of lead shot (25lb each), evenly distributed over the bottom. The drag load shall be applied simultaneously by pulling on the aft frame of the basket with a chain connected to a come-along and a load cell.

Record the position of the basket prior to loading. Record the deflections under load. Record the position of the basket after the load is removed. Determine by comparison if deformation is present.

4.1.2 Ultimate Load

The basket shall be loaded with bags of lead shot (25lb each), evenly distributed over the bottom. The drag load shall be applied simultaneously by pulling on the aft frame of the basket with a chain connected to a come-along and a load cell.

Record the position of the basket prior to loading. Record the deflections under load. Record the position of the basket after the load is removed. Determine by comparison if deformation is present.

5.0 LOAD TEST RESULTS – 78401 / 78402 CONFIGURATION (LONG BASKET)

5.1 Positive Maneuvering / Drag Condition

5.1.1 Limit Load

The basket weight applies 1g down, so it will be subtracted from the required load.

Limit maneuvering load in test = 910 lbs – 60 lbs = 850 lbs

Limit drag in test = 289 lbs

The basket was loaded with 875 lbs of lead shot (35 bags at 25lb each), evenly distributed over the bottom. The limit drag load applied was 300 lbs. Deflection at the outboard forward corner under load was 0.75". There was no permanent deformation after the limit load was removed.



Figure 5.1.1 – Limit Maneuvering Load

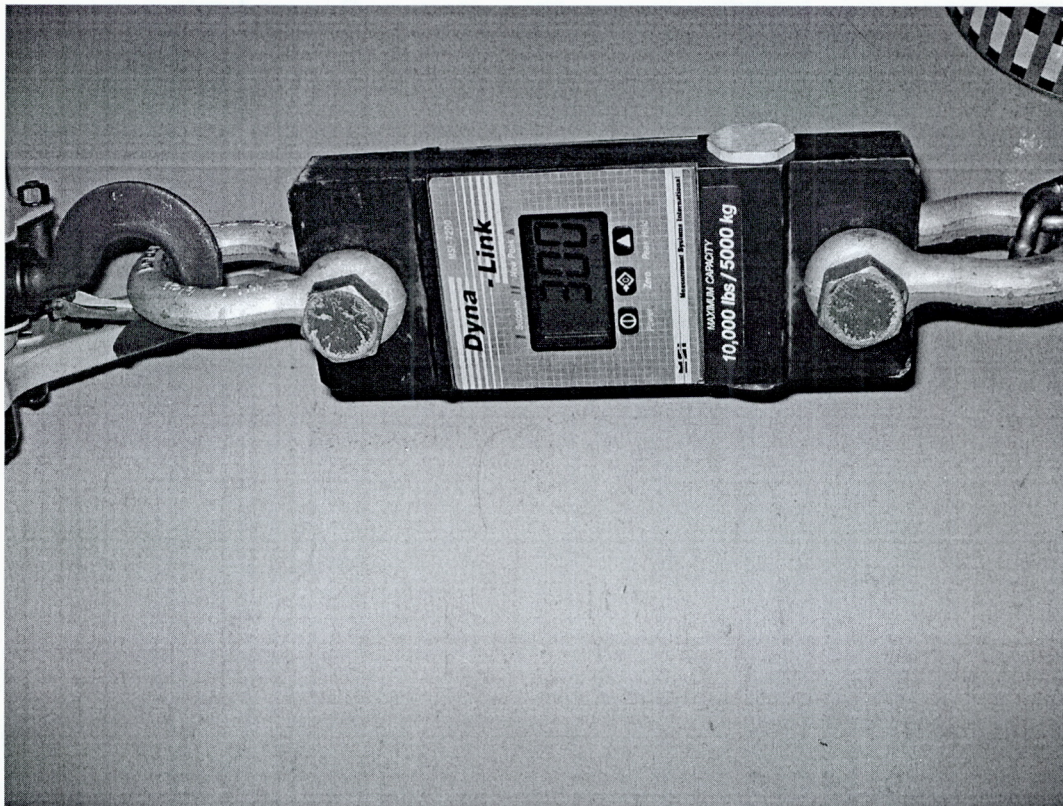


Figure 5.1.2 – Limit Drag Load

5.1.2 Ultimate Load

The basket weight applies 1g down, so it will be subtracted from the required load.

Ultimate maneuvering load in test = 1365 lbs – 60 lbs = 1305 lbs

Ultimate drag in test = 433 lbs

The basket was loaded with 1325 lbs of lead shot (53 bags at 25lb each), evenly distributed over the bottom. The ultimate drag load applied was 440 lbs. Deflection at the outboard forward corner under load was 1.06". There was no permanent deformation after the ultimate load was removed.



Figure 5.1.3 – Ultimate Maneuvering Load

Note that the chain to apply the drag load is slack in the picture above. A clamp attaching the chain to the inboard side of the hoop slipped off after the required 3 seconds of applied load had elapsed. A picture of the drag load was not taken before the clamp slipped off.

6.0 LOAD TEST RESULTS – 76401 CONFIGURATION (MEDIUM BASKET)

6.1 Positive Maneuvering / Drag Condition

6.1.1 Limit Load

The basket weight applies 1g down, so it will be subtracted from the required load.

Limit maneuvering load in test = 858 lbs – 45 lbs = 813 lbs

Limit drag in test = 289 lbs

The basket was loaded with 825 lbs of lead shot (33 bags at 25lb each), evenly distributed over the bottom. The limit drag load applied was 340 lbs. Deflection at the outboard forward corner under load was 0.25". There was no permanent deformation after the limit load was removed.



Figure 6.1.1 – Limit Maneuvering Load

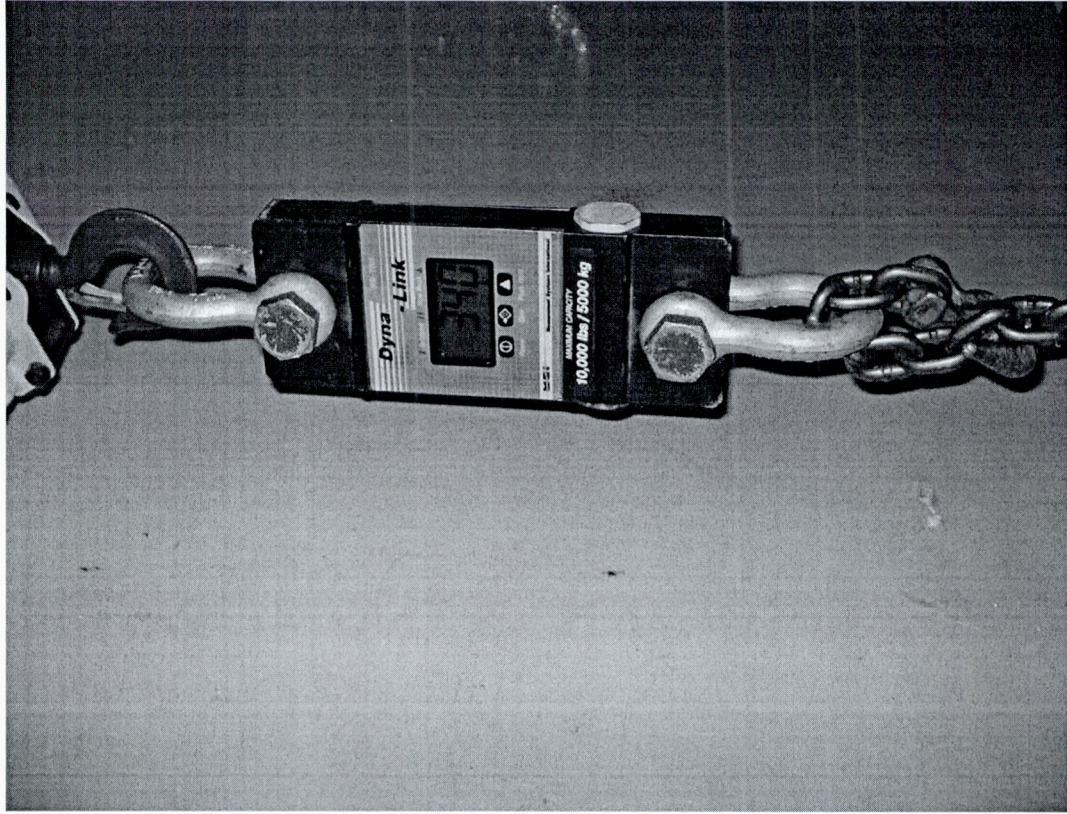


Figure 6.1.2 – Limit Drag Load

6.1.2 Ultimate Load

The basket weight applies 1g down, so it will be subtracted from the required load.

Ultimate maneuvering load in test = 1286 lbs – 45 lbs = 1241 lbs

Ultimate drag in test = 433 lbs

The basket was loaded with 1250 lbs of lead shot (50 bags at 25lb each), evenly distributed over the bottom. The ultimate drag load applied was 450 lbs. Deflection at the outboard forward corner under load was 0.38". There was no permanent deformation after the ultimate load was removed.



Figure 6.1.3 – Ultimate Maneuvering Load

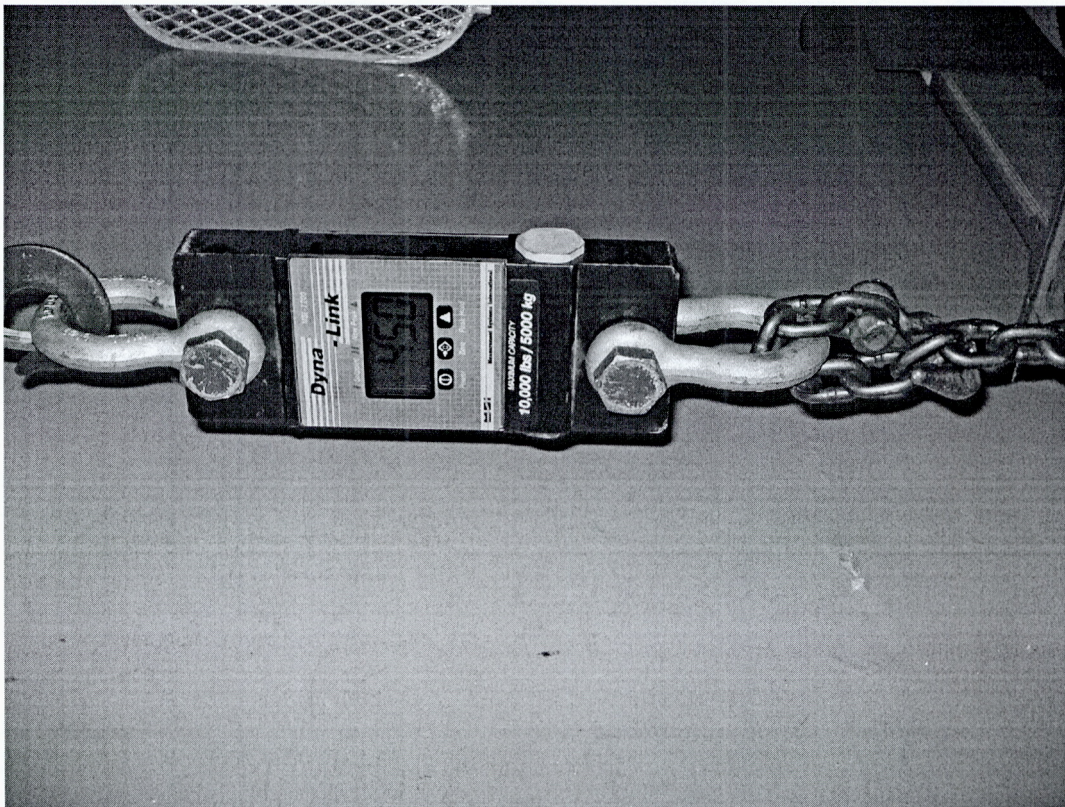


Figure 6.1.4 – Ultimate Drag Load

7.0 LOAD TEST RESULTS – 77601/77602 CONFIGURATION (SHORT BASKET)

7.1 Positive Maneuvering / Drag Condition

7.1.1 Limit Load

The basket weight applies 1g down, so it will be subtracted from the required load.

Limit maneuvering load in test = 830 lbs – 37 lbs = 793 lbs

Limit drag in test = 289 lbs

The basket was loaded with 825 lbs of lead shot (33 bags at 25lb each), evenly distributed over the bottom. The limit drag load applied was 310 lbs. Deflection at the outboard forward corner under load was 0.19". There was no permanent deformation after the limit load was removed.



Figure 7.1.1 – Limit Maneuvering Load

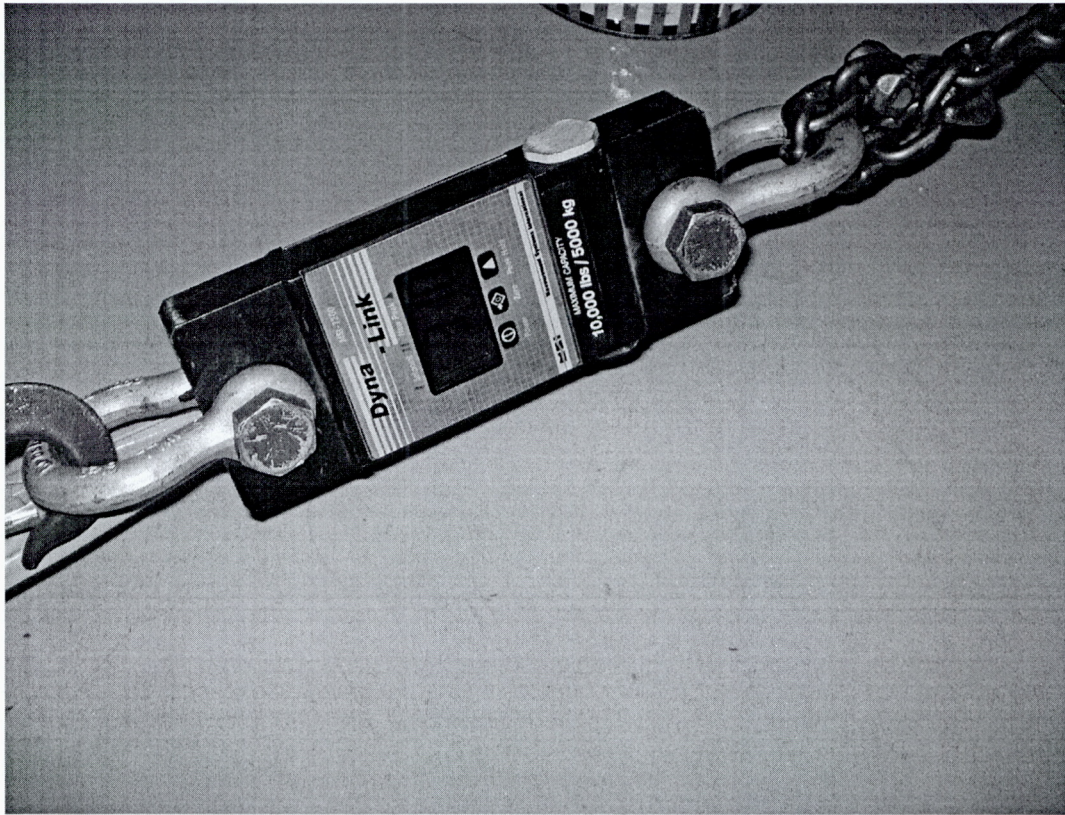


Figure 7.1.2 – Limit Drag Load

7.1.2 Ultimate Load – 200 lbs Cargo

The basket weight applies 1g down, so it will be subtracted from the required load.

Ultimate maneuvering load in test = 1244 lbs – 37 lbs = 1207 lbs

Ultimate drag in test = 433 lbs

The basket was loaded with 1225 lbs of lead shot (49 bags at 25lb each), evenly distributed over the bottom. The ultimate drag load applied was 460 lbs. Deflection at the outboard forward corner under load was 0.25". There was no permanent deformation after the ultimate load was removed.



Figure 7.1.3 – Ultimate Maneuvering Load
(200 lbs cargo)

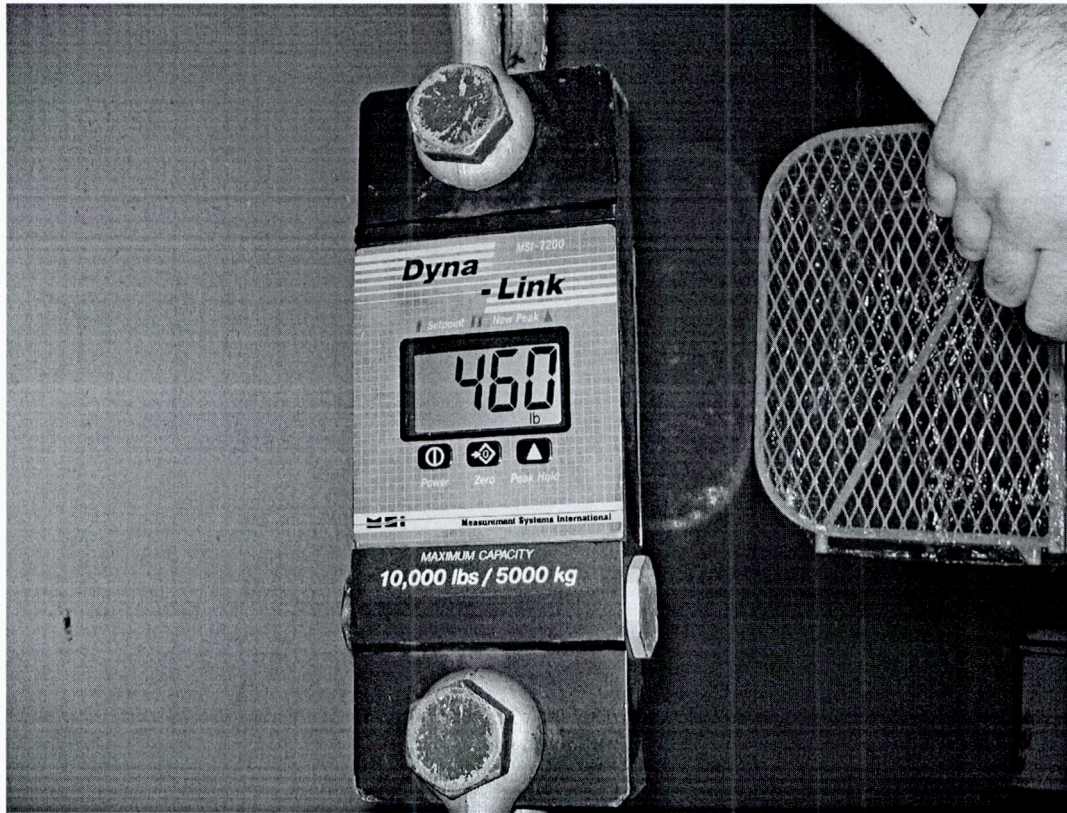


Figure 7.1.4 – Ultimate Drag

7.1.3 Ultimate Load – 300 lbs Cargo

The basket weight applies 1g down, so it will be subtracted from the required load.

Ultimate maneuvering load in test = 1769 lbs – 37 lbs = 1732 lbs

Ultimate drag in test = 433 lbs

The basket was loaded with 1875 lbs of lead shot (75 bags at 25lb each), evenly distributed over the bottom. The ultimate drag load applied was 450 lbs. Deflection at the outboard forward corner under load was 0.5". There was no permanent deformation after the ultimate load was removed.

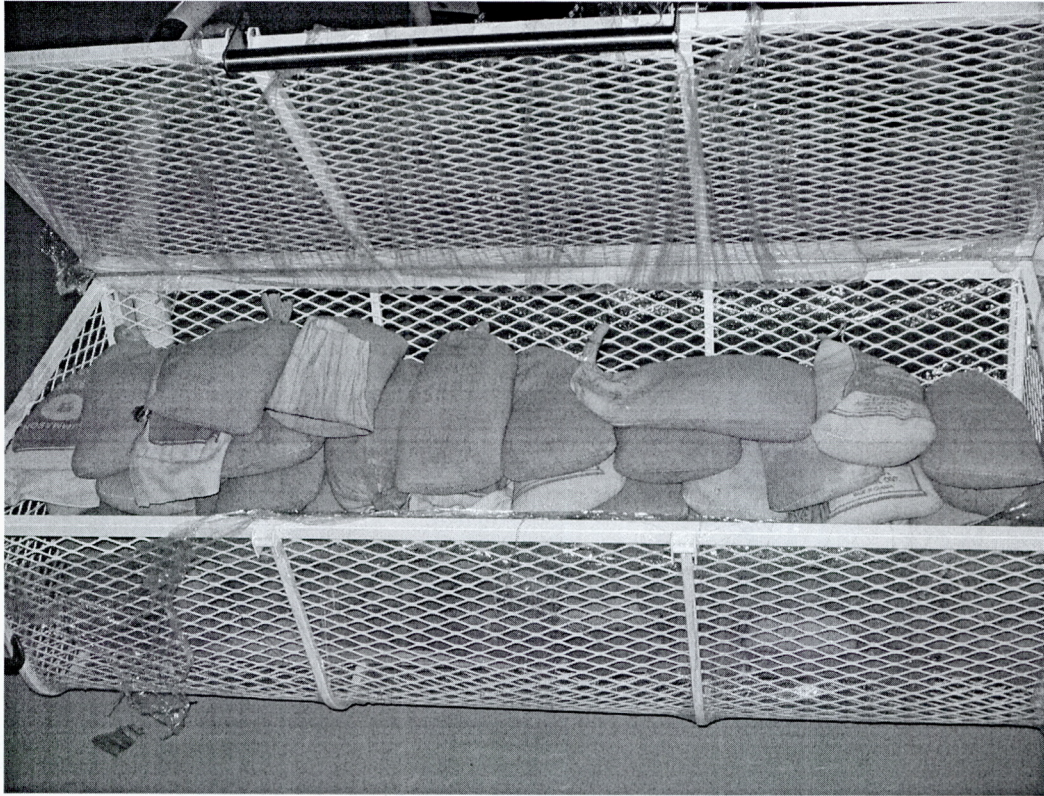


Figure 7.1.5 – Ultimate Maneuvering Load
(300 lbs Cargo)

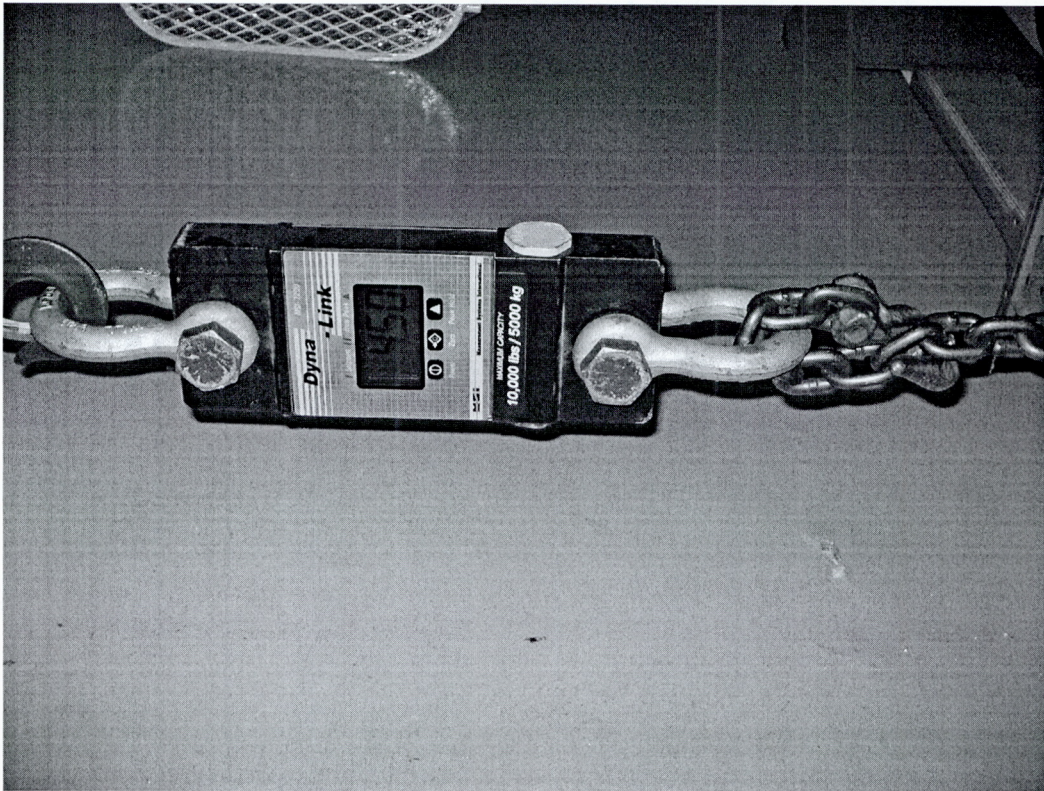


Figure 7.1.6 – Ultimate Drag Load

Permanent deformation at limit load for 300 lbs cargo was not checked. Deflection of the basket after removal of ultimate load showed no signs of permanent deformation. Since there was no permanent deformation after application of ultimate load, limit load has been demonstrated to be acceptable.

8.0 TEST WITNESS

All of the above tests were witnessed by Transport Canada Aircraft Certification Engineer Greg Oucharek on 10 March, 2008.



VIH Helicopters Ltd.

1962 Canso Road
North Saanich, B.C. V8Z 5V5
Phone: (250) 656-3987 Cell (250) 713-2932
Fax: (250) 655-6849
Email: ctaylor@vih.com

Aero Design
2013 39th Ave NE
Calgary, AB
T2E 6R7

Att: Ted Burgoyne

ATTN: DAVE MCNAB
FROM: TED

Dear Ted,

This letter is to confirm that we wish you to apply, on our behalf, for a flight permit from Transport Canada, for the purpose of testing a new utility basket design for Eurocopter EC30 (Astar) model helicopters.

Our aircraft will be C-FTDE, flown by Ian Wood. He'll be arriving on Sunday night and will have an engineer with him as well as dual controls for installation prior to the flight with the Transport Canada test pilot. Our A.M.E. will supervise the install and sign the appropriate documents upon completion.

Hopefully this letter will suffice, and if you have anything to add please give me a call.

Best regards,


Corey Taylor
Operations Manager
VIH Helicopters
(250) 713-2932
ctaylor@vih.com

FAXED TO DAVE
FRI MAR 15
10:30

Transport
CanadaTransports
Canada

Canada



Print

Current Information, directly from the Official Canadian Civil Aircraft Register database.

Aircraft Information

Mark: C-FTDE**Common Name:** Aerospatiale**Model Name:** AS 350 B-2**Serial No:** 2796**Basis for Eligibility for Registration:** Type Certificate - CAR Standard 507.02 (1), 507.03 (3) - H83**Category:** Helicopter**Max take-off weight:** 2250 kgs**Engine:** 1, Turbo Shaft**24-bit address:** 110000000011001001111111**Regional Office:** Vancouver**Base of Operations:** CANADA , British Columbia, Sidney

Manufacturer Information

Manufacturer: Eurocopter, Eurocopter France**Country of manufacture:** FRANCE**Year of Manufacture:** 1994

Registration Information

Type of Registration: Commercial**Owner Registered Since:** 1998-02-12**Latest Certificate of Registration Issued:** 2006-07-28

Last Registered Owner Information

Name: VIH Helicopters Ltd**Address:** 1962 Canso Rd**City:** North Saanich**Province/State:** British Columbia**Postal Code:** V8L 5V5**Country:** CANADA**Region:** Pacific**Mail Recipient:** Yes

AERO DESIGN LTD.

2013 – 39th Ave N. E., Calgary, Alberta, T2E 6R7

info@aerodesign.ca

F A X C O V E R S H E E T

DATE: March 13, 2008

TIME: 11:08 AM

TO: **Corey Taylor**

PHONE: 250-656-3987

VIH Helicopters

FAX: 250-655-6839

FROM: J. Clarke
Aero Design Ltd.

PHONE: 403-250-8027

FAX: 403-250-8333

Number of pages including cover sheet: 3

RE: FLIGHT PERMIT FOR AS350 CARGO BASKETS

Corey,

Please find attached the flight permit for flight testing the AS350 Cargo Baskets.



Jeff Clarke

AERO DESIGN LTD.

2013 – 39th Ave N. E., Calgary, Alberta, T2E 6R7

info@aerodesign.ca

F A X C O V E R S H E E T

DATE: March 13, 2008

TIME: 9:00 AM

TO: **Dave McNab**
Transport Canada

PHONE: 292-5008

FAX: 292-6709

FROM: J. Clarke
Aero Design Ltd.

PHONE: 403-250-8027

FAX: 403-250-8333

Number of pages including cover sheet: 2

RE: FLIGHT PERMIT APPLICATION

Dave,

Please find attached the flight permit application for flight testing our AS350 Cargo Baskets.

Regards,


Jeff



Transport Canada
Aviation

APPLICATION FOR A
FLIGHT PERMIT

DEMANDE DE
PERMIS DE VOL

INSTRUCTIONS

Print or type all entries. See Airworthiness Manual Chapter 507D and Airworthiness Manual Advisory AMA 507D/1 for the use and disposition of this form.
Dactylographier ou écrire en lettres moulées. Consulter le chapitre 507D du Manuel de navigabilité et la circulaire consultative AMA 507 D/1 qui précisant la façon de remplir et d'acheminer la présente formule.

A. AIRCRAFT IDENTIFICATION IDENTIFICATION DE L'AÉRONEF

1. Owner - Propriétaire VIH Helicopters Ltd.			
2. Address - Adresse 1962 Canso Road, North Saanich, BC			
3. Aircraft Manufacturer - Constructeur de l'aéronef Eurocopter	4. Model - Modèle AS350 B2	5. Serial Number - Numéro de série 2796	6. Nationality and Registration Marks Marques de nationalité et d'immatriculation C-FTDE

B. FLIGHT PERMIT REQUESTED - Check applicable boxes PERMIS DE VOL DEMANDÉ - Cocher la ou les case(s) voulue(s)

1. <input type="checkbox"/> Experimental Flight Permit Permis de vol expérimental			
2. <input checked="" type="checkbox"/> Specific Purpose Flight Permit Permis de vol à une fin spécifique			
(a) <input type="checkbox"/> Ferry Flight Vol de convoyage	(b) <input type="checkbox"/> Importation or Exportation Flight Vol à l'importation ou à l'exportation	(c) <input type="checkbox"/> Demonstration, Market Survey or Crew Training Vol de démonstration, étude de marché ou formation d'équipage	
(d) <input checked="" type="checkbox"/> Flight Test following repair, modification or maintenance Essais en vol après réparation, modification ou maintenance	(e) <input type="checkbox"/> Other purpose (Specify) Autre fin (Préciser)		

C. FLIGHT DESCRIPTION AND AIRCRAFT LIMITATIONS DESCRIPTION DU VOL ET LIMITATIONS DE L'AÉRONEF
Description of Flight(s) Use attachment when appropriate Description du ou des vol(s) Joindre une feuille au besoin

1. From - Aéroport de départ CYBW (Springbank) or CFX2 (Okotoks) (TBD)	2. To - Aéroport de destination CYBW (Springbank) or CFX2 (Okotoks) (TBD)	
3. Via - Escales None	4. Date 13 March 2008	5. Duration - Durée 90 Days
6. Aircraft does not meet the applicable airworthiness requirements as follows: - Raisons pour lesquelles l'aéronef ne satisfait pas aux exigences de navigabilité en vigueur: Attachment Provisions installed in accordance with drawing 78601 - Provisions Installation Quick Release Cargo Basket installed in accordance with one of the following drawings: 76401 - Cargo Basket Installation (75.75" Basket) 77601 - Cargo Basket Installation (57.25" Basket) 78401 - Cargo Basket Installation (93.25" Basket) Flight to Vd (1.11 x Vne) in accordance with AERO Design Ltd. Flight Test Plan FTP763.03 Flight test is in support of STC application.		
7. The following restrictions are considered necessary for safe operations: - Les restrictions suivantes sont nécessaires pour la conduite des vols en toute sécurité: Day VFR conditions No flight over built up areas Essential crew only Flight Testing in accordance with AERO Design Ltd. Flight Test Plan FTP764.03 Flight to 1.11 x Vne permitted (1.11 x 155 kts = 172 kts)		

D. CERTIFICATION

I hereby certify that the aircraft described above is in a condition for safe operation. Je, soussigné, certifie que l'aéronef décrit ci-dessus est en bon état de vol.

Signature 	Date (Y-A - M - D) 2008 MAR 13	<input type="checkbox"/> Registered Owner as shown on the Certificate of Registration Propriétaire enregistré selon le certificat d'immatriculation <input checked="" type="checkbox"/> Authorized Representative Représentant autorisé
---------------	-----------------------------------	--

AERO Design Ltd.

PLAN / RESULTS

**TEST REPORT
TR764.02**

**QUICK RELEASE CARGO BASKET
EUROCOPTER AS350 SERIES, AS355 SERIES**

Approved: E. Burgoin, P. Eng.

Prepared by: R. Rathwell

Revision 0
Date: 29 February 2008

AERO Design Ltd.
Engineering Consultants

2013 – 39th Avenue N.E., Calgary, Alberta T2E 6R7
Phone: (403) 250-8027
Fax: (403) 250-8333
E-Mail: info@aerodesign.ca

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1.0 INTRODUCTION

This plan shall demonstrate structural compliance for the Eurocopter AS350/355 Series quick release cargo basket in the positive maneuvering and drag condition.

2.0 REFERENCE

AERO Design Ltd. Engineering Report ER764.01

AC 43.13-2A Chapter 1 Paragraph 3

3.0 LOADS

AS350 Series and AS355 Series, FAR 27:

FAR 27.561(b)(3)

Ultimate Upward Emergency Landing Load Factor: $n_{e_up} := 1.5$

Ultimate Forward Emergency Landing Load Factor: $n_{e_fwd} := 4.0$

Ultimate Sideward Emergency Landing Load Factor: $n_{e_side} := 2.0$

Ultimate Downward Emergency Landing Load Factor: $n_{e_down} := 4.0$

FAR 27.625 Fitting Factor (does not apply to articles being tested): $n_{ff} := 1.15$

FAR 27.303 Safety Factor: $n_{sf} := 1.5$

FAR 27.337(a)

Limit Positive Maneuvering Load Factor: $n_{man} := 3.5$

$n_{man_ult} := n_{man} \cdot n_{sf}$ Ultimate Positive Maneuvering Load Factor: $n_{man_ult} = 5.25$

Limit Negative Maneuvering Load Factor: $n_{man_neg} := -1.0$

$n_{man_neg_u} := n_{man_neg} \cdot n_{sf}$ Ultimate Negative Maneuvering Load Factor: $n_{man_neg_u} = -1.5$

CRITICAL ULTIMATE LOAD FACTORS:

Downward: Ultimate Positive Maneuvering Load Factor: $n_{man_ult} = 5.25$

Forward: Ultimate Forward Emergency Landing Load Factor: $n_{e_fwd} = 4$

Sideward: Ultimate Sideward Emergency Landing Load Factor: $n_{e_side} = 2$

Upward: Ultimate Upward Emergency Landing Load Factor: $n_{e_up} = 1.5$

This report only deals with the positive maneuvering condition.

3.1 Inertia Loads

3.1.1 Cargo Basket 78401 / 78402

$W_{\text{basket}} := 60 \text{ lbf}$ Weight of largest basket configuration -78402 (97" long)

$W_{\text{cargo}} := 200 \text{ lbf}$ Weight of cargo (max)

$P_{\text{basket}} := W_{\text{basket}} + W_{\text{cargo}}$

$P_{\text{basket}} = 260 \text{ lbf}$ Combined weight of basket and cargo

$P_{\text{lim_man}} := P_{\text{basket}} \cdot n_{\text{man}}$

$P_{\text{lim_man}} = 910 \text{ lbf}$ Limit maneuvering load

$P_{\text{ult_man}} := P_{\text{basket}} \cdot n_{\text{man_ult}}$

$P_{\text{ult_man}} = 1365 \text{ lbf}$ Ultimate maneuvering load

3.1.2 Cargo Basket 76401

$W_{\text{basket}} := 45 \text{ lbf}$ Weight of medium basket configuration -76401 (75.75" long)

$W_{\text{cargo}} := 200 \text{ lbf}$ Weight of cargo (max)

$P_{\text{basket}} := W_{\text{basket}} + W_{\text{cargo}}$

$P_{\text{basket}} = 245 \text{ lbf}$ Combined weight of basket and cargo

$P_{\text{lim_man}} := P_{\text{basket}} \cdot n_{\text{man}}$

$P_{\text{lim_man}} = 858 \text{ lbf}$ Limit maneuvering load

$P_{\text{ult_man}} := P_{\text{basket}} \cdot n_{\text{man_ult}}$

$P_{\text{ult_man}} = 1286 \text{ lbf}$ Ultimate maneuvering load

3.1.3 Cargo Basket 77601 / 77602

$W_{\text{basket}} := 37 \text{ lbf}$ Weight of short basket configuration -77602 (61.25" long)

$W_{\text{cargo}} := 200 \text{ lbf}$ Weight of cargo (max)

$P_{\text{basket}} := W_{\text{basket}} + W_{\text{cargo}}$

$P_{\text{basket}} = 237 \text{ lbf}$ Combined weight of basket and cargo

$P_{\text{lim_man}} := P_{\text{basket}} \cdot n_{\text{man}}$

$P_{\text{lim_man}} = 830 \text{ lbf}$ Limit maneuvering load

$P_{\text{ult_man}} := P_{\text{basket}} \cdot n_{\text{man_ult}}$

$P_{\text{ult_man}} = 1244 \text{ lbf}$ Ultimate maneuvering load

3.2 Drag Loads

Constants:

$$\rho := 0.002378 \frac{\text{slug}}{\text{ft}^3}$$

Density of air at Sea Level.

$$V_{ne} := 155 \text{ knots}$$

Never-Exceed-Speed of AS350B3.
(Ref. AS350 TCDS)
(Highest of AS350/AS355 Series)

$$V_d := \frac{V_{ne}}{0.9}$$

$$V_d = 172 \text{ knots}$$

Design Dive Speed of AS350B3

Cargo Basket 78401 / 78402:

$$l_{\text{basket}} := 97 \text{ in}$$

Length of basket.

$$w_{\text{basket}} := 22.5 \text{ in}$$

Width of basket

$$h_{\text{basket}} := 19.25 \text{ in}$$

Height of basket.

$$A_f := 376 \text{ in}^2$$

Frontal Area of basket.

$$A_p := l_{\text{basket}} \cdot w_{\text{basket}}$$

$$A_p = 2183 \text{ in}^2$$

Planar Area of basket.

$$\frac{l_{\text{basket}}}{w_{\text{basket}}} = 4.3$$

Fineness ratio of basket

$$C_{Do} := 1.1$$

Drag Coefficient of Basket, (overestimated)
(Ref. Hoerner, Fluid Dynamic Drag, Figure 22).

$$P_{\text{drag}} := \frac{\rho}{2} \cdot V_d^2 \cdot A_f \cdot C_{Do}$$

$$P_{\text{drag}} = 289 \text{ lbf}$$

Limit Drag on basket.

$$P_{\text{drag_ult}} := P_{\text{drag}} \cdot n_{sf}$$

$$P_{\text{drag_ult}} = 433 \text{ lbf}$$

Ultimate Drag load on basket

$$AC_{\text{drag}} := 48.4 \text{ in}$$

Lateral Aerodynamic Center of basket.
(Low configuration)

Cargo Basket 78401 / 78402 have the largest frontal area. This drag will be used in all of the tests.

4.0 LOAD TEST PLAN

To test the basket and beams, a set of AS350 landing gear cross tubes are assembled, and the cargo basket provisions installed in accordance with drawing 78601. The basket is then installed on the provisions in accordance with drawing 78401/78402, 77601/77602, 76401 as applicable.

4.1 Positive Maneuvering / Drag Condition

4.1.1 Limit Load

The basket shall be loaded with bags of lead shot (25lb each), evenly distributed over the bottom. The drag load shall be applied simultaneously by pulling on the aft frame of the basket with a chain connected to a come-along and a load cell.

Record the position of the basket prior to loading. Record the deflections under load. Record the position of the basket after the load is removed. Determine by comparison if deformation if present.

4.1.2 Ultimate Load

The basket shall be loaded with bags of lead shot (25lb each), evenly distributed over the bottom. The drag load shall be applied simultaneously by pulling on the aft frame of the basket with a chain connected to a come-along and a load cell.

Record the position of the basket prior to loading. Record the deflections under load. Record the position of the basket after the load is removed. Determine by comparison if deformation if present.

5.0 LOAD TEST RESULTS – 78401 / 78402 CONFIGURATION (LONG BASKET)

5.1 Positive Maneuvering / Drag Condition

5.1.1 Limit Load

The basket weight applies 1g down, so it will be subtracted from the required load.

Limit maneuvering load in test = 910 lbs – 60 lbs = 850 lbs

Limit drag in test = 289 lbs

The basket was loaded with 875 lbs of lead shot (35 bags at 25lb each), evenly distributed over the bottom. The limit drag load applied was **XX**. *310 lb.*

5.1.2 Ultimate Load

The basket weight applies 1g down, so it will be subtracted from the required load.

Ultimate maneuvering load in test = 1365 lbs – 60 lbs = 1305 lbs

Ultimate drag in test = 433 lbs

The basket was loaded with 1325 lbs of lead shot (53 bags at 25lb each), evenly distributed over the bottom. The ultimate drag load applied was **XX**. *440 lbs drag*

*0.5
27 1325*

6.0 LOAD TEST RESULTS – 76401 CONFIGURATION (MEDIUM BASKET)

6.1 Positive Maneuvering / Drag Condition

6.1.1 Limit Load

The basket weight applies 1g down, so it will be subtracted from the required load.

Limit maneuvering load in test = 858 lbs – 45 lbs = 813 lbs

Limit drag in test = 289 lbs

The basket was loaded with 825 lbs of lead shot (33 bags at 25lb each), evenly distributed over the bottom. The limit drag load applied was **XX**. *340 lb.*

6.1.2 Ultimate Load

The basket weight applies 1g down, so it will be subtracted from the required load.

Ultimate maneuvering load in test = 1286 lbs – 45 lbs = 1241 lbs

Ultimate drag in test = 433 lbs

The basket was loaded with 1250 lbs of lead shot (50 bags at 25lb each), evenly distributed over the bottom. The ultimate drag load applied was **XX**. *510 lb.*

7.0 LOAD TEST RESULTS – 77601/77602 CONFIGURATION (SHORT BASKET)

7.1 Positive Maneuvering / Drag Condition

7.1.1 Limit Load

The basket weight applies 1g down, so it will be subtracted from the required load.

Limit maneuvering load in test = 830 lbs – 36 lbs = 794 lbs

Limit drag in test = 289 lbs

The basket was loaded with 825 lbs of lead shot (33 bags at 25lb each), evenly distributed over the bottom. The limit drag load applied was **XX**. *310 lb.*

7.1.2 Ultimate Load

The basket weight applies 1g down, so it will be subtracted from the required load.

Ultimate maneuvering load in test = 1244 lbs – 36 lbs = 1208 lbs

Ultimate drag in test = 433 lbs

The basket was loaded with 1225 lbs of lead shot (49 bags at 25lb each), evenly distributed over the bottom. The ultimate drag load applied was **XX**. *460 lb.*

300 lb Load Rating

$$\begin{array}{r}
 49 \\
 26 \\
 \hline
 75 = 1875 \text{ lb}
 \end{array}$$

~~High~~ Low / Long

Initial condition



23⁷/₈

after time ult

✓

✓

@ limit.

23¹/₈

@ ult.

22¹³/₁₆

Low / Short



24 ✓✓

Limit

200

300

ult

ult

23¹³/₁₆

23³/₄

23¹/₂

Low / MED



23⁷/₈

✓✓

Limit

200

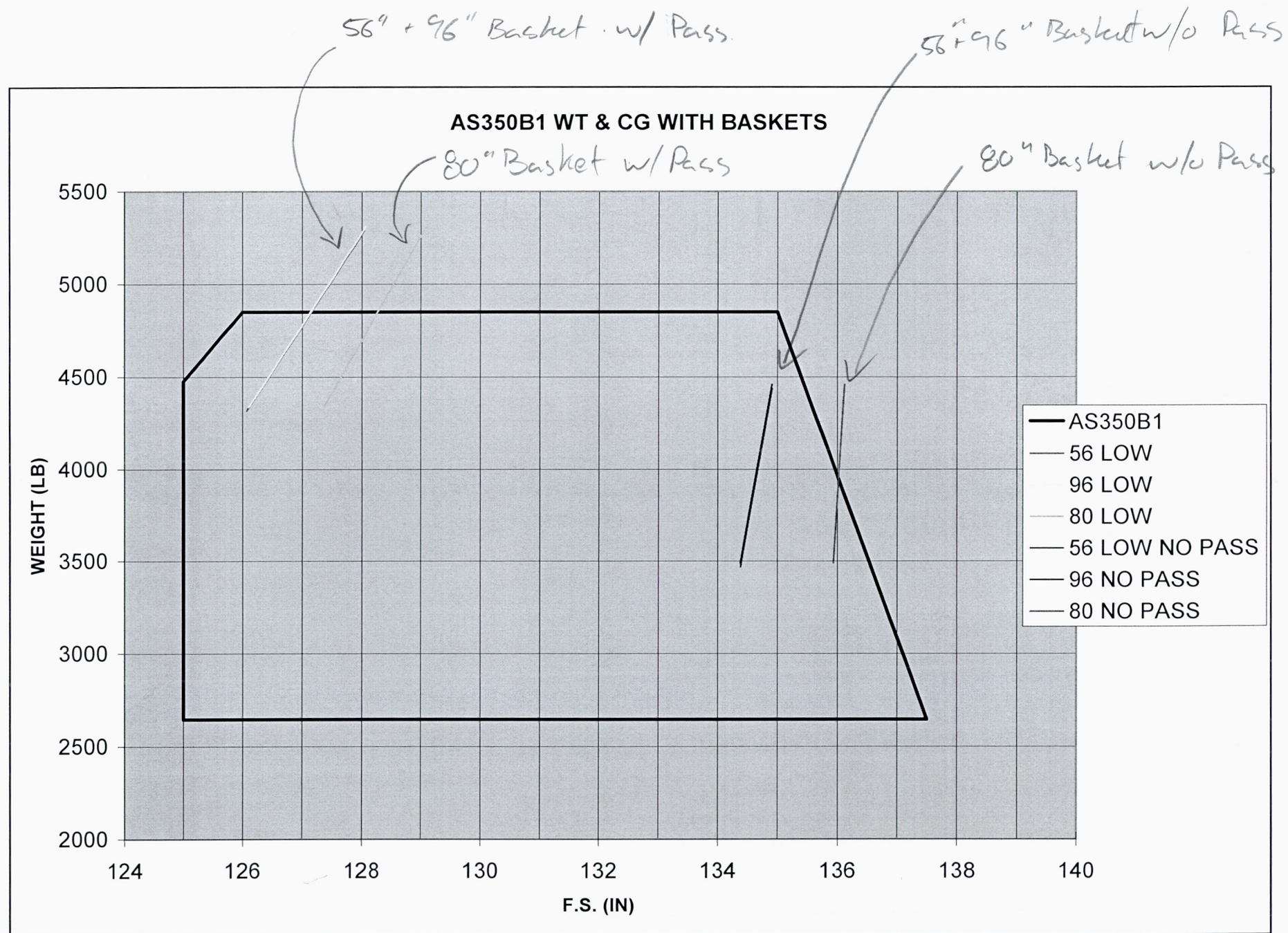
~~300~~

ult

23⁵/₈

23¹/₂

206 764



Richard Rathwell

From: Ted [ted@aerodesign.ca]
Sent: Tuesday, February 12, 2008 6:34 PM
To: Rathwell, Richard
Subject: weight

AS350 weight and cof g for you to work with.

Ted.

----- Original Message -----

From: Louis Trottier
To: ted@aerodesign.ca
Sent: Tuesday, February 12, 2008 5:20 PM
Subject: [SPAM] weight

Ted;

These are the weights

B2

2911.80	138.41	403015.48	0.55	1600.28
---------	--------	-----------	------	---------

B/A

2794.51	138.98	388382.45	0.57	1600.28
---------	--------	-----------	------	---------

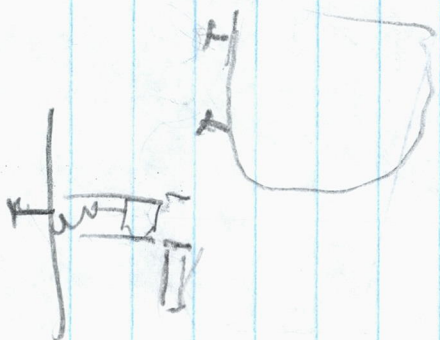
Sorry for the delay.

Louis Trottier
General Manager
Phone: (403) 730-6333
Fax: (403) 730-6312

AS 350 Real
wts

✓

PST
 END
 205/07
 BASKET
 11 $\frac{3}{4}$
 cleared.



R	L
54	54
53 $\frac{13}{16}$	53 $\frac{7}{8}$

INSIDE/INSIDE

8
 8

01LS-Σ18

60.345

60.375 → Centre to
↓ Centre on logs
0.03 Difference.

Make basket for this
using 505

Richard

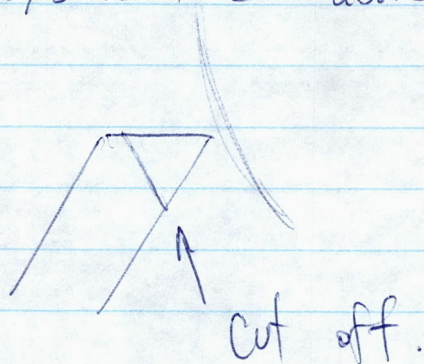
76" AS 350 Basket
Needs to be $75\frac{3}{4}$

This is same as
407/L3 Basket
Uses same jig

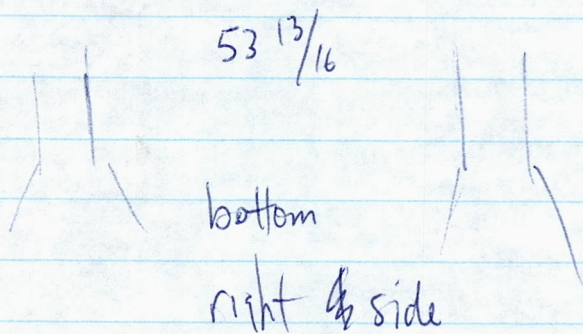
w/ bracket @ 1" above weld

ground clearance = $8\frac{3}{4}$

Top tip right @ side of helicopter @ fuel end
of beam w/ bracket @ 1" above weld.

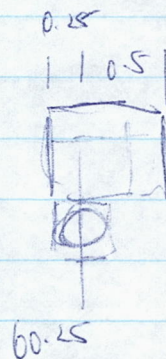


~ keyway locations good.



change to $60\frac{1}{4}$ centre to centre on lugs.

~~Shift top keyways down 1"~~



61.25

Add 0.015 to inside
radios of clamps.

Increase corner rad.



Calgary Fastener
 6x 1" C Clamp
 Other Store.
 Wp # 171788
 Carry.
 1410
 \$1.72 each
 17188
 Cash sales.

ACT.

8009

2x Centre Drill
 \$28.75 each.

2" thick

AS350 D VNE 147 kts (272 km/h) 0 → 1000 ft, then reduce 35 kts/1000ft.
 D1 same except higher gross weight
 B same ↑
 B1 VNE 155 kts (287 km/h) Reduce 3 kts/1000 ft
 B2 same ↑
 BA same ↑
 B3 same ↑

Cent Basis

FAR 27 27-1 thru 27-10

B1, B2, BA CAR 527.1301-1 Ground cold soak
 .1557(c)(3) Misc. Markings + Placards
 .1581 RFM

B3 CAR 527.1583(h) Operating Limitations - Ambient Temp
 B3 w/mod OP-3369 select sections to replace FAR 27

AS355 E

$V_{NE} = 150K$ (278 km/h) all

F

F1

F2

N

E, F, F1, F2

FAR 27 27-1 thru 16

F2 only

CAR 527.1301-1

.1557(c)(3)

.1581

AS355 N

FAR 27 and 20 + Sections @ 21

527.1093 (b)(1)(ii) + (iii) Induction system icing protection

527.1301-1 Ground op after cold soak.

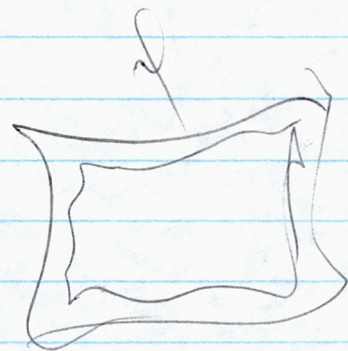
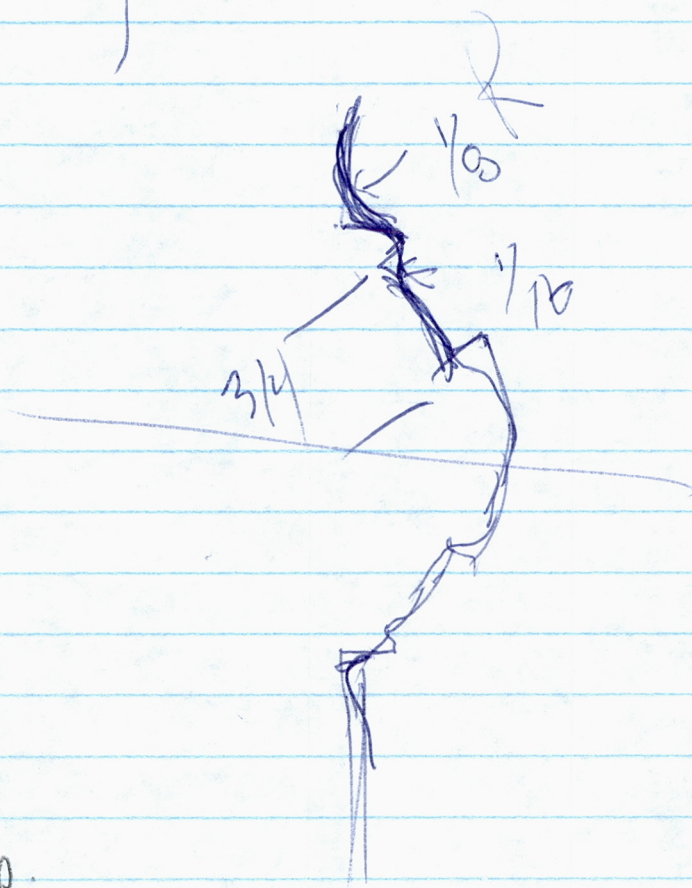
527.1557(c)(3) Fuel Filler Markings

.1583(h)

4.544

10. $\frac{10}{12}$ 1.25

1.25



$\frac{1}{2}$ - $\frac{1}{32}$

Truss clamp.

T-bolts.

Circ small = 6.754

Circ large = 7.383

$$C = \pi d$$

$$\frac{7.13}{\pi} = d$$

$$2.270 = d.$$

L A T E R A L

High Beams BL 36.73 in x 9.2 lb 337.9 in-lb
932.8 mm x 4.16 kg 3880.4 mm-kg

Low Beams BL 37.59 in x 6.2 lb 233.1 in-lb
954.8 mm x 2.81 kg 2678.6 mm-kg

Fwd Brkts BL 37.73 in x 0.4 lb 15.09 in-lb
958.3 mm x 0.18 kg 172.5 mm-kg

Aft Brkts BL 38.28 in x 0.4 lb 15.31 in-lb
972.3 mm x 0.18 kg 175.0 mm-kg

BRACKETS TOTAL 38.0 in x 0.8 lb 30.4 in-lb
965.3 x 0.36 kg 347.5 mm-kg

NORMAL POSITION

LONG

HIGH BEAMS 9.2 lb 135.65 1247.98 in-lb 167.5/163.8
4.16 kg 3445.57 14333.3 mm-kg

Low BEAMS 6.2 lb 135.65 841.0 in-lb
2.81 kg 3445.57 9681.9 mm-kg

FWD BEAM FWD POSITION

163.8/103.3

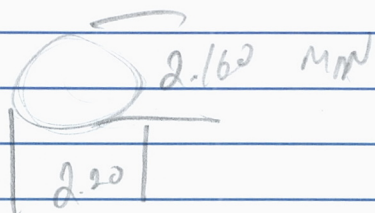
HIGH BEAMS 9.2 lb 133.55 1228.7 in-lb
4.16 kg 3392.77 14111.4 mm-kg

Low BEAMS 6.2 lb 133.55 828.0 in-lb
2.81 kg 3392.17 9532.0 mm-kg

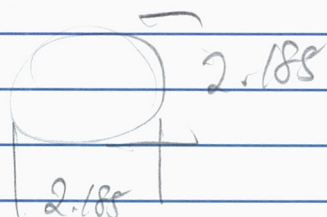
Bottom

FWD LEFT

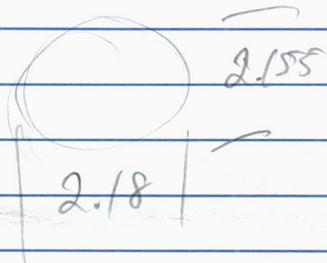
←
FWD



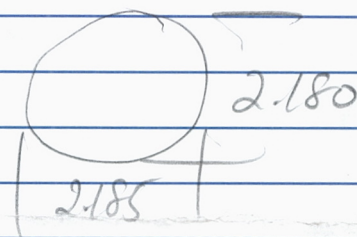
AFT left



←
FWD

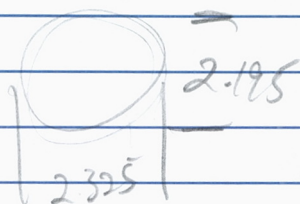


AFT Right

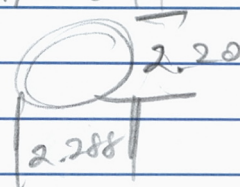


TOP

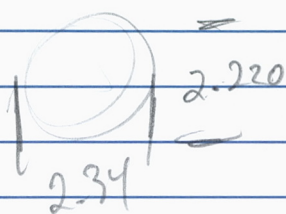
FWD Left



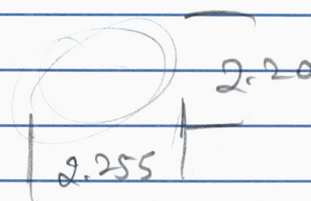
AFT left



FWD RIGHT



AFT .



2.162 MIN R-APP

2.200 MIN R-FWD

2.20 ~~2.167~~ MIN L-FWD

2.165 MIN L-APP

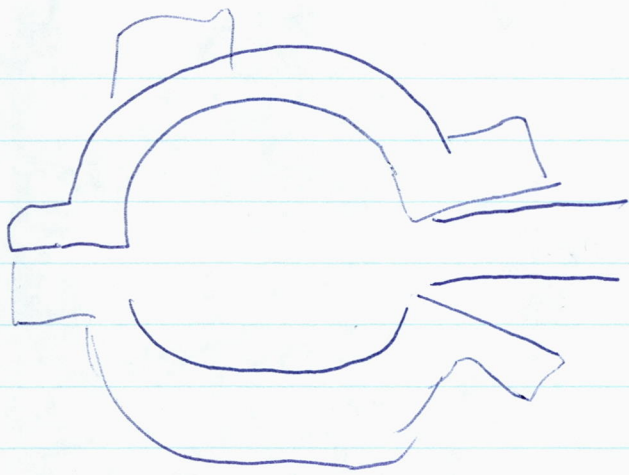
@ top of basket clamp

206 Camera Plate.

1.5" thick

Finish size 7.0 x 7.25

7.5" SQUARE



INITIAL = 0.473

After TOP = 0.443

After Bottom = 0.340

(closed to ~ 0.170)
Should have bottomed
on bolt.

After top again 0.428

RGL Home

Federal Aviation Regulation

▼ Sec. 27.65

Part 27 AIRWORTHINESS STANDARDS: NORMAL CATEGORY ROTORCRAFT	
Subpart B--Flight	Performance

Sec. 27.65

Climb: All engines operating.

- (a) For rotorcraft other than helicopters--
 - (1) The steady rate of climb, at V_Y , must be determined--
 - (i) With maximum continuous power on each engine;
 - (ii) With the landing gear retracted; and
 - (iii) For the weights, altitudes, and temperatures for which certification is requested; and
 - (2) [The climb gradient, at the rate of climb determined in accordance with paragraph (a)(1) of this section, must be either--]
 - (i) At least 1:10 if the horizontal distance required to take off and climb over a 50-foot obstacle is determined for each weight, altitude, and temperature within the range for which certification is requested; or
 - (ii) [At least 1:6 under standard sea level conditions.]
- (b) Each helicopter must meet the following requirements:
 - (1) V_Y must be determined--
 - (i) For standard sea level conditions;
 - (ii) At maximum weight; and
 - (iii) With maximum continuous power on each engine.
 - (2) [The steady rate of climb must be determined--
 - (i) At the climb speed selected by the applicant at or below V_{NE} ;
 - (ii) Within the range from sea level up to the maximum altitude for which certification is requested;
 - (iii) For the weights and temperatures that correspond to the altitude range set forth in paragraph (b)(2)(ii) of this section and for which certification is requested; and
 - (iv) With maximum continuous power on each engine.]

Amdt. 27-33, Eff. 8/8/96

► Comments

▼ **Document History**

Notice of Proposed Rulemaking Actions:

Notice of Proposed Rulemaking. 94-36; Issued on 12/12/94.

Final Rule Actions:

Final Rule. Docket No. 28008; Issued on 05/02/96.

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IMPORTANT NOTE:

Printed from EUROCOPTER CD ROM "OPEN 350" : Rev 98/42.

(Information may be updated beyond that date, do not rely on this printout).

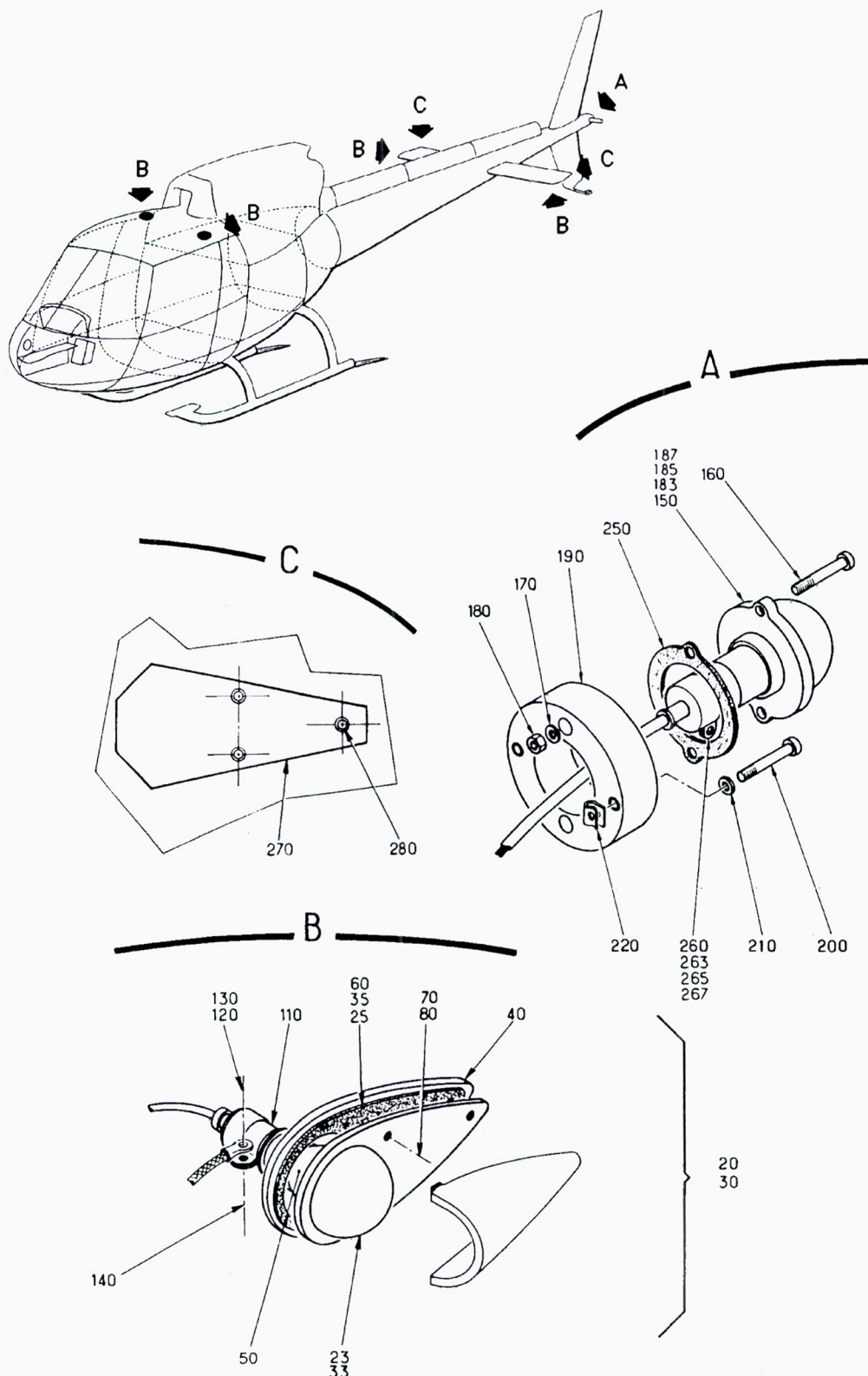


FIG. 1
 INST FEUX DE POSITION
 POSITION LIGHTS INST
 350

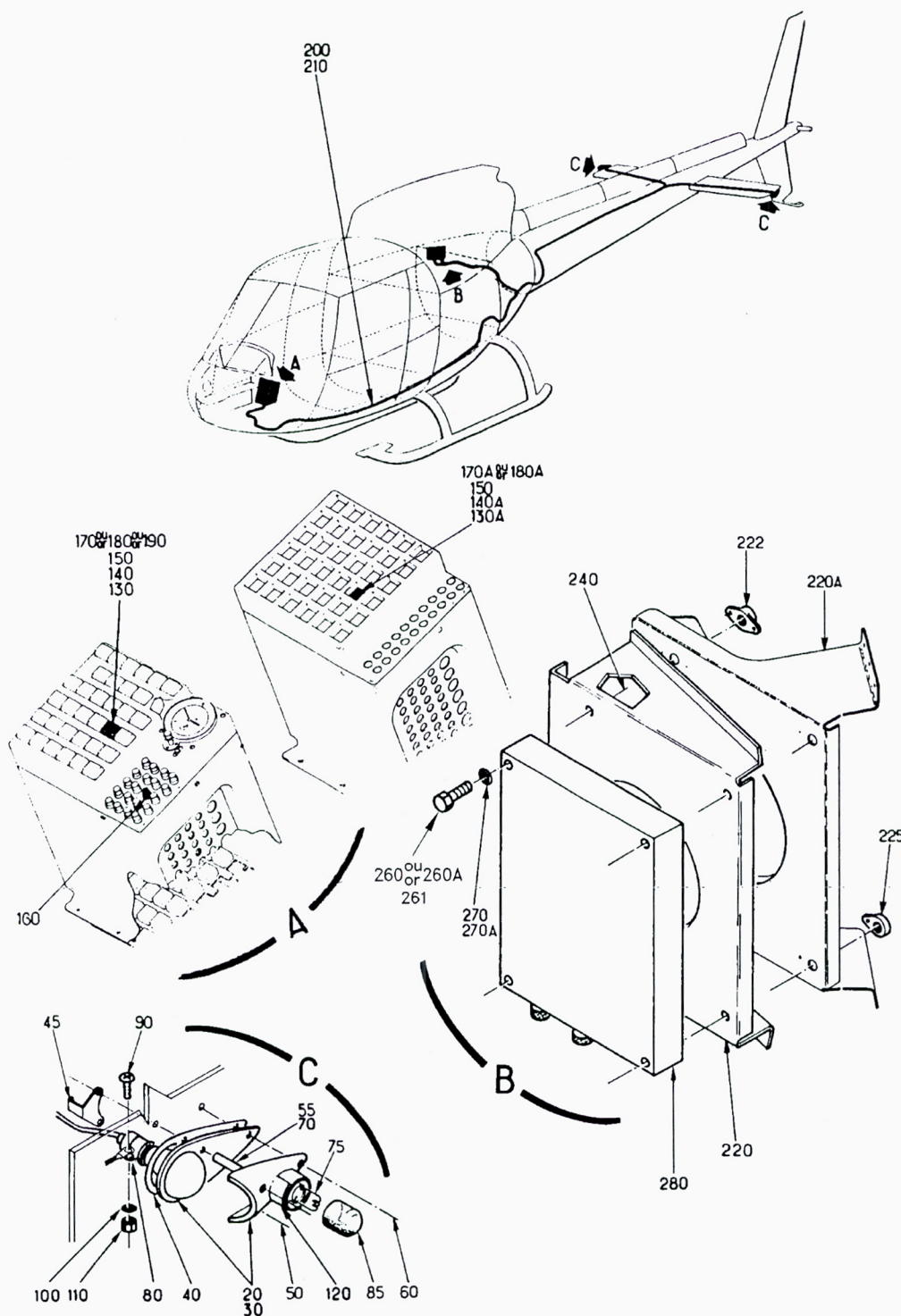


FIG. 1
INST FEUX DE POSITION A ECLATS
POSITION STROBES LIGHTS INST
350

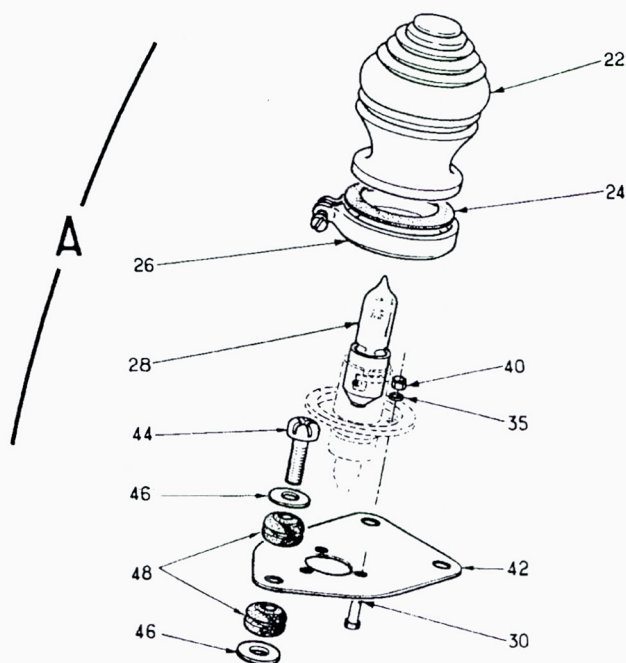
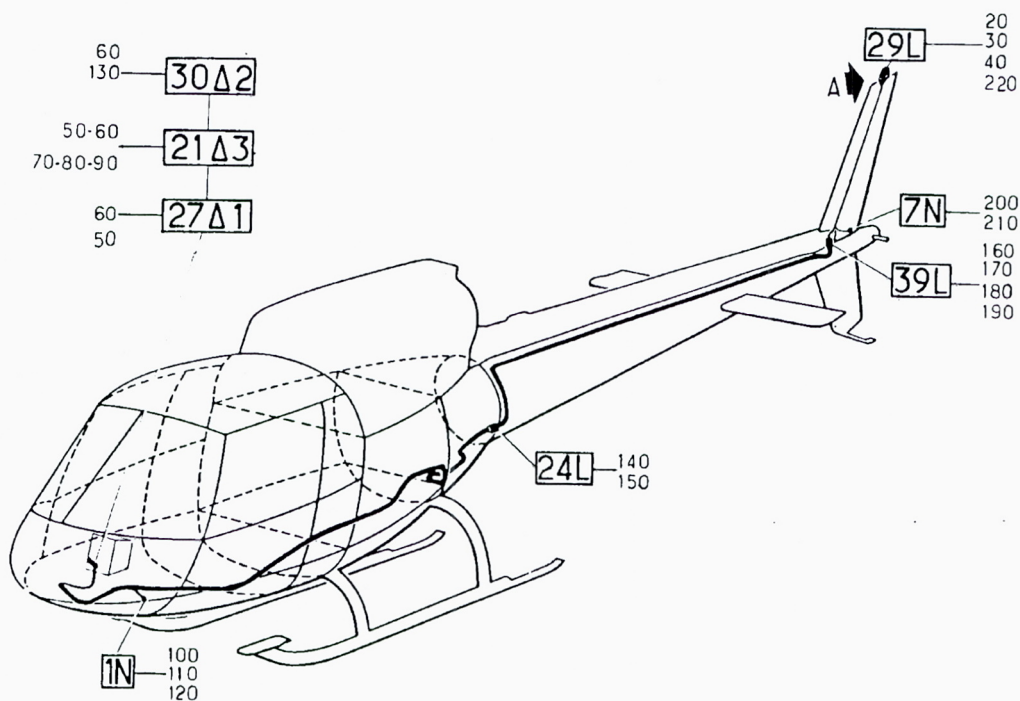


FIG. 1
 INSTALLATION FEU ANTICOLLISION
 ANTI-COLLISION LIGHT INSTALLATION
 350

IMPORTANT NOTE:

*Printed from EUROCOPTER CD ROM "OPEN 350": 11/98/98/42.

(Information may be updated beyond that date, do not use this printout).

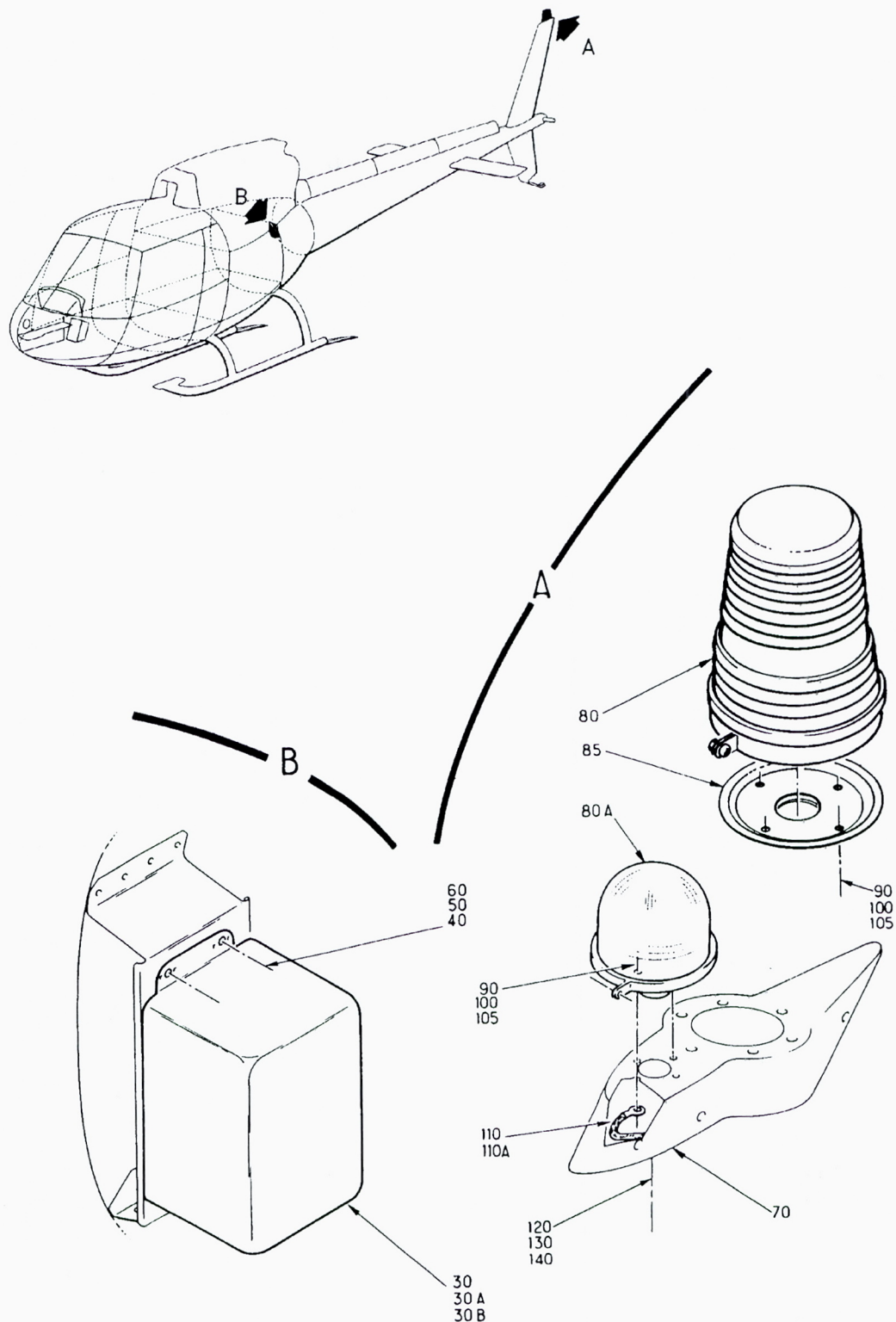


FIG. 1
 INST FEU ANTICOLLISION A ECLATS
 ANTI-COLLISION STROBES LIGHT INST
 350

AERO DESIGN LTD.

2013 – 39 Avenue N.E., Calgary, Alberta, T2E 6R7

Tel: 403-250-8027

Fax: 403-250-8333

www.aerodesign.ca

26 February, 2008

Transport Canada
Aircraft Certification Division
11th Floor, Canada Place
9700 Jasper Avenue
Edmonton, Alberta
T5J 4E6

FXED
FEB 26/08
2:10 PM

Attn: Jack Staal

Your File : C-08-0181

Our File : 764

Re: Eurocopter AS350/AS355 Cargo Basket Installation

Jack,

Please find attached the following documents related to this project:

Modification Approval Request Application Form
Compliance Program
Project Summary

MOD764
CP764
PS764

Revision 0
Revision 0
Revision 0

Regards,

Jeff Clark

For: E. Burgoin, P.Eng, DAR 290M

Encl.

AIRWORTHINESS REQUIREMENTS COMPLIANCE PROGRAM

APPLICANT: AERO Design Ltd.
2013 39th Avenue NE
Calgary, Alberta, T2E 6R7

DATE: 06 February, 2008
REV. No. 0

CORRESPONDANCE TO:
(If other than applicant)

MAKE: Eurocopter (Aerospatiale)
MODEL: AS350 Series, AS355 Series

REGISTRATION: All Applicable
SERIAL No.: All Applicable

NATURE OF WORK: Installation of Side-Mounted External Cargo Basket

MODEL CERTIFICATION BASIS: FAR 27, Amendment 27-20, plus select sections of later Amendments (AS355NP basis of certification)
MODIFICATION CERTIFICATION BASIS: FAR 27, Amendment 27-20, plus select sections of later Amendments (AS355NP basis of certification)

Airworthiness Requirement		Subject for Compliance or Documentary Proof	Form of Substantiation	DOT	DAR	Comments
Paragraph	Amdt.					
Subpart B – Flight						
27.27	20	Centre of Gravity Limits	N/A			No change from Type Approval.
27.29	20	Empty Weight and Corresponding C of G	Data specified on inst'n drawing		X	
27.45	24	Performance - General	Flight Test	X		Flight test in accordance with FTP764.03
27.51	39	Takeoff	Flight Test	X		
27.65	39	Climb: All Engines Operating	Flight Test	X		
27.71	21	Glide Performance	Flight Test	X		
27.73	20	Performance at Min. Operating Speed	Flight Test	x		
27.75	39	Landing	Flight Test	X		
27.141	20	Flight Characteristics – General	Flight Test	X		
27.143	21	Controllability and Maneuverability	Flight Test	X		
27.151	21	Flight Controls	Flight Test	X		
27.161	21	Trim Control	Flight Test	X		
27.171	20	Stability – General	Flight Test	X		
27.173	21	Static Longitudinal Stability	Flight Test	X		
27.175	21	Demonstration of Longitudinal Stability	Flight Test	X		
27.177	21	Static Directional Stability	Flight Test	X		
27.241	20	Ground Resonance	Flight Test	X		
27.251	20	Vibration	Flight Test	X		

Airworthiness Requirement	Subject for Compliance or Documentary Proof	Form of Substantiation	DOT	DAR	Comments
Paragraph	Amdt.				
Subpart C – Strength Requirements					
27.301	20	Loads – Air Drag Loads		X	
27.301	20	Loads – Inertia Loads		X	
27.303	20	Factor of Safety		X	
27.305	20	Strength and Deformation		X	
27.307	20	Proof of Structure		X	
27.337(a)	20	Limit Maneuvering Load Factor – Positive		X	Critical load factor in downward direction.
27.547	20	Main Rotor Structure	Flight Test	X	
27.561	20	Emergency Landing Conditions	Analysis and Test iaw AC 43.13-1B	X	
27.561(b)3(i)	20	Emergency Landing Conditions – Up	Analysis and Test iaw AC 43.13-1B	X	
27.561(b)3(ii)	20	Emergency Landing Conditions – Fwd	N/A		Forward deflection or failure of basket poses no threat to occupants.
27.561(b)3(iii)	20	Emergency Landing Conditions – Side	Analysis and Test iaw AC 43.13-1B	X	
27.561(b)3(iv)	20	Emergency Landing Conditions – Down	Compliance with 27.337	X	27.337 Maneuvering Load is Critical.
Subpart D – Design and Construction					
27.601	20	Design	Drawings	X	Design is conventional.
27.603	20	Materials	Drawings	X	Materials used are specified in Mil-Hdbk-5J.
27.605	20	Fabrication Methods	Drawings	X	Design is conventional.
27.609	20	Protection of Structure	Drawings	X	
27.611	20	Inspection Provisions	Drawings	X	Design is easy to inspect.
27.613	20	Material Strength Properties and Design Values	Values used as per Mil-Hdbk-5J	X	
27.625	20	Fitting Factor	Analysis	X	
27.783	20	Doors	N/A		Installation does not block doors.
27.787(a)	20	Cargo and Baggage Compartments	Compliance with 23.301 through 307	X	
27.787(b)	20	Cargo and Baggage Compartments	Design	X	Basket is a closed container.
27.787(c)	20	Cargo and Baggage Compartments	N/A		Cargo is external to helicopter.
27.787(d)	20	Cargo and Baggage Compartments	N/A		No cargo lamps
27.807	21	Emergency Exits	N/A	X	Installation does not block doors.
27.1387	20	Position Light System Dihedral Angles	N/A – statement in report		No change from Type Approval.
27.1401	20	Anticollision Light System	N/A – statement in report		No change from Type Approval.

Airworthiness Requirement	Subject for Compliance or Documentary Proof	Form of Substantiation	DOT	DAR	Comments
Paragraph	Amdt.				
Subpart G – Operating Limitations and Information					
27.1505	20	Never Exceed Speed	Flight Test, Flight Manual Supplement	X	V _{NE} limits as specified in the existing Flight Manual
27.1525	21	Kinds of Operation	Flight Manual Supplement	X	Limited to VFR only.
27.1529	20	Instructions for Continued Airworthiness	ICA Provided	X	
27.1557(a)	20	Miscellaneous Markings and Placards – Baggage Compartments	Placard on lid		X
27.1557(b)	20	Miscellaneous Markings and Placards	N/A		
27.1557(c)	20	Miscellaneous Markings and Placards	N/A		
27.1557(d)	20	Miscellaneous Markings and Placards	N/A		
27.1581	20	Rotorcraft Flight Manual – General	Flight Manual Supplement	X	
27.1583(c)	20	Operating Limitations – Weight and Loading Information	Flight Manual Supplement	X	
27.1585	21	Operating Procedures	Flight Manual Supplement	X	
27.1587	44	Performance Information	Flight Manual Supplement	X	
27.1589	20	Loading Information	Flight Manual Supplement & Placard	X	Placard installed on basket lid
CAR 527					
527.1093(b) (1)(ii)+(iii)		Induction System Icing Protection	N/A		No change from Type Approved configuration
527.1301-1		Rotorcraft Operations After Ground Cold Soak	N/A		No change from Type Approved configuration
527.1557(c) (3)		Miscellaneous Markings and Placards – Fuel Filler Openings	N/A		No change from Type Approved configuration
527.1581		Flight Manual - General	Flight Manual Supplement	X	SI / Imperial units provided
527.1583(h)		Operating Limitations – Ambient Temperature	N/A		No change from Type Approved configuration

Title: Quick Release Cargo Basket Installation

Approval: STC

Manufacture: Mfd by Aero Design (amend Approved Product List)

Customer:

Type and Model: Eurocopter (Aerospatiale) AS350 series and AS355 series

Definition Of Change:

Description:

Installation of a quick release cargo basket on the right and/or left side of the helicopter. In response to various customer requests and contract requirements, a number of configurations are provided.

Attachment provisions consist of clamps onto the landing gear cross tubes, and down tubes which incorporate keyways for mounting of the baskets. Two configurations are available, a high and low. The low configuration is required if the helicopter is fitted with "squirrel cheeks" (extended cargo compartment).

The basket is available in 3 basic configurations. The first is a short basket, 56" long, which just spans the cross tubes. The second is a long basket, 96" long. The third is a medium length basket, with a stock length of 76",

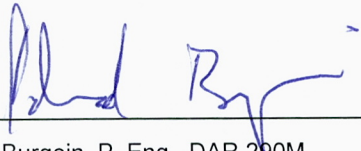
Construction and attachment of the medium length basket allows the length to vary anywhere from 56" to 96" long at customer request. The forward and aft attachments remain fixed with the additional length added to the aft end

Primary Changes to the Aeronautical Product:

Installation of attachment provisions, installation of cargo basket

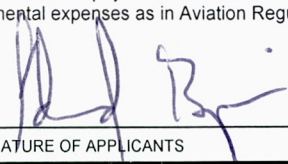
Secondary Changes to the Aeronautical Product (Required as consequence of primary changes):

Other Relevant Modifications to the Aeronautical Product (Which impact on this change):

CHANGED PRODUCT RULE (CPR) DECISION RECORD	
NAPA No.:	
Step 1: Identify the proposed change to the aeronautical product. (Section 4.1 of AC 500-016)	The changes are as previously described.
Step 2: Is the change substantial? (Section 4.2 of AC 500-016)	<input type="checkbox"/> Yes A new type certificate is required. CPR Decision Process is Closed . <input checked="" type="checkbox"/> No Proceed to Step 3
Step 3: Will the latest standards be used? (Section 4.3 of AC 500-016)	<input type="checkbox"/> Yes Certification basis to use latest standards. CPR Decision Process is Closed . <input checked="" type="checkbox"/> No Proceed to Step 4.
Step 4: Is the proposed change significant? (Section 4.4 of AC 500-016)	<input type="checkbox"/> Yes Proceed to Decision. <input checked="" type="checkbox"/> No Compliance may be shown to earlier standards. Certification basis to be defined and documented as indicated (below). CPR Decision Process is Closed .
Decision: Will the latest standards be used?	<input type="checkbox"/> Yes Certification basis to use latest standards. CPR Decision Process is Closed . <input type="checkbox"/> No Proceed to Step 5, addressing each area separately (see below).
Identification of Affected Areas:	The area(s) affected by the proposed change have been detailed in Compliance Program: CP764
Note: A delegate may develop a proposal for the Yes/No decision of Step 6, however, TCCA will make the final determination.	
Area:	
Step 5: Is this area affected by the proposed change? (Section 6.1 of AC 500-016)	<input type="checkbox"/> Yes Proceed to Step 6. <input type="checkbox"/> No Compliance with the latest standards is not required. Compliance may be shown to earlier standards. Certification basis defined or documented as indicated below.
Step 6: Are the latest standards practical and do they contribute materially to the level of safety? (Section 6.2 of AC 500-016)	<input type="checkbox"/> Yes Certification basis to be established using latest standards. <input type="checkbox"/> No Compliance with the latest standards is not required. Compliance may be shown to earlier standards. Certification Basis defined or documented as indicated in below.
<input type="checkbox"/> Continuation Sheet(s) Attached	Note: Several standards may apply to each area and the assessment may differ from standard to standard. Indicate Yes if compliance with any latest standard(s) will be required. Indicate No only if no later standards are to be applied.
Certification Basis	The certification basis is as follows or as detailed in the listed document(s): Eurocopter (Aerospatiale) AS350 series and AS355 series: FAR 27, Amendment 27-20, plus select sections of Amendment 27-21 (AS355N basis of certification)
Under the delegated authority, I have examined the change in type design listed above according to established procedures and hereby determine, to the best of my knowledge and belief, that it is. (check one)	
<input type="checkbox"/> substantial, pursuant to subsection 511.14 or 513.14 of the CARs <input type="checkbox"/> significant, pursuant to subsection 511.13(3) or 513.07(3) of the CARs <input checked="" type="checkbox"/> not significant, pursuant to subsection 511.13(3) or 513.07(3) of the CARs	
 E. Burgoin, P. Eng., DAR 290M	
19 February, 2008 Date	

MODIFICATION APPROVAL REQUEST APPLICATION FORM

MOD764, Rev. 0

1. NAME AND ADDRESS OF APPLICANT:		2. IDENTIFICATION OF PRODUCT				
AERO Design Ltd. 2013 - 39th Avenue NE Calgary, Alberta T2E 6R7		MAKE: Eurocopter		MODEL: AS350 (all models) AS355 (all models)		
ALL CORRESPONDANCE TO: AERO Design Ltd. 2013 - 39th Avenue NE Calgary, Alberta T2E 6R7		SERIAL No.: All eligible		REGISTRATION: All eligible		
3. REQUEST FOR:						
A. SUPPLEMENTAL TYPE CERTIFICATE (STC)		<input checked="" type="checkbox"/>		C-08-0181		
B. STC/STA REVISION		<input type="checkbox"/>		STC/STA No.		
C. LIMITED SUPPLEMENTAL TYPE CERTIFICATE (LSTC)		<input type="checkbox"/>				
D. LIMITED STC/STA REVISION		<input type="checkbox"/>		LSTC/LSTA No.		
E. F.A.A. SUPPLEMENTAL TYPE CERTIFICATE		<input checked="" type="checkbox"/>				
F. F.A.A. STC REVISION		<input type="checkbox"/>		STC No.		
G. FAMILIARIZATION OF F.A.A. STC		<input type="checkbox"/>		STC No.		
H. REPAIR DESIGN APPROVAL (RDC)		<input type="checkbox"/>				
I. PARTS DESIGN APPROVAL (PDA)		<input type="checkbox"/>				
4. TITLE OF MODIFICATION OR REPAIR: Quick Release Cargo Basket Installation						
5. BRIEF DESCRIPTION OF MODIFICATION OR REPAIR: Installation of external attachment provisions (low or high configuration). Installation of cargo basket.						
6. APPLICABLE TYPE APPROVAL (TA) OR TYPE CERTIFICATE (TC) DOCUMENTS:						
A. TA NO. H-83/H-87 B. TC No. C. OTHER						
7. PROPOSED BASIS OF APPROVAL:						
A. SAME AS TA <input checked="" type="checkbox"/> B. SAME AS TC <input type="checkbox"/> C. OTHER <input type="checkbox"/> (Please specify)						
8. DOCUMENTATION CHECKLIST		REQUIRED		FOR DOT USE ONLY		
		YES	NO	RECEIVED		
		YES	NO	YES	NO	DATE
COMPLIANCE PROGRAM		X				
MASTER DRAWING LIST		X				
FLIGHT MANUAL SUPPLEMENT		X				
MAINTENANCE MANUAL SUPPLEMENT			X			
INSTRUCTIONS FOR CONTINUING AIRWORTHINESS		X				
ENGINEERING REPORTS		X				
DESIGN DRAWINGS			X			
MANUFACTURE DRAWINGS & INSTALLATION INSTRUCTIONS		X				
ELECTRICAL LOAD ANALYSIS			X			
DRAFT STC, LSTC OR RDA		X				
WEIGHT AND MOMENT CHANGE		X				
FLIGHT TEST DATA		X				
OTHER (Specify)						
9. APPLICANT'S REMARKS:						
10. In addition to the payment of Aircraft Certification approval fees as prescribed in Canadian Aviation Regulations (CAR) Section 104, I agree to reimburse Transport Canada incremental expenses as in Aviation Regulation Directive No. 3, or equivalent, as applicable. For further details governing cost recovery, refer to AMA 513/4.						
PER: 		Consultant		19 February, 2007		
SIGNATURE OF APPLICANTS		TITLE		DATE		
11.						
SIGNATURE OF REGIONAL ENGINEER		DATE				



DESIGN CHANGE APPROVAL APPLICATION

DEMANDE D'APPROBATION D'UNE MODIFICATION DE LA CONCEPTION

Legal name and address of applicant Nom et adresse légal du demandeur Aero Design Ltd. 9888A Malaspina Road Powell River, BC, Canada V8A 0G3		Legal name and address of prospective holder Nom et adresse légal du titulaire éventuel Aero Design Ltd. 9888A Malaspina Road Powell River, BC, Canada V8A 0G3		Name and address for billing purposes (if different than applicant) Nom et adresse aux fins de facturation (si différent du demandeur)	
Identification of aeronautical product / Identification du produit aéronautique					
Make / Marque Airbus Helicopters		Model / Modèle AS355		Registration / Immatriculation All eligible	
				Serial No. / N° du série All eligible	
				Part No. / N° de la pièce	
Request for (check appropriate box) / Objet de la demande (Cochez les carrés selon le cas)				Type Design Examination by Foreign Authority Examen de la définition de type par autorité étrangère	
<input type="checkbox"/> STC CTS				<input type="checkbox"/> Repair Design Approval (RDA) Approbation de la conception de réparation (ACR)	
<input type="checkbox"/> STC (single serial number) CTS (numéro de série simple)				<input type="checkbox"/> Repair Design Approval - Process Repair ACR - Processus de réparation	
<input type="checkbox"/> STC (multiple serial numbers) CTS (numéros de série multiples)				<input type="checkbox"/> Part Design Approval (PDA) Approbation de la conception de pièce (ACP)	
<input type="checkbox"/> Type Certificate Revision Revision de certificat de type				<input checked="" type="checkbox"/> Application to a foreign authority is requested La demande à une autorité étrangère est demandée.	
<input checked="" type="checkbox"/> Revision Révision				<input type="checkbox"/> Type design examination of foreign change Examen de la définition de type modification étrangère	
No. / N° SH08-16				Identify / Identifier EASA - new STC	
Current Issue / Édition active 5					
<input type="checkbox"/> Restricted Category / Catégorie restreinte					
Type of Operation / Type d'opération					
Title and brief description of modification, repair or replacement part, including effects of changes (use additional pages if necessary). Refer to CAR 521.155(b)(i) for details. Titre et brève description de la modification, de la réparation ou de la pièce de rechange, y compris les effets des changements (utiliser des feuilles supplémentaires si nécessaire). Référez-vous à RAC 521.155(b)(i) pour des détails. Installation of mounting provisions and cargo basket. Installation of mounting provisions on landing gear cross tubes. Installation of cargo basket (4 different sizes) on mounting provisions.					
Applicable Type Certificate (TC) / Certificat de type (CT) pertinent					
TC No. / N° de CT H-87 (R.146)		Issue No. / N° de l'édition 10 (6)		Identify State of Design / Identifier l'état de conception EASA	
The applicant is responsible for the control of product manufacture / Le demandeur est responsable du contrôle de la fabrication du produit					
<input checked="" type="checkbox"/> Yes / Oui <input type="checkbox"/> No / Non If no, identify who is responsible / Si non, identifier qui est responsable					
Documentation to be submitted / Documentation à soumettre				Applicant / Demandeur	
				Submitted / Soumis	
				Yes / Oui No / Non	
Proposed certification basis / Proposition de base de certification				<input checked="" type="checkbox"/>	
Certification plan in accordance with CAR 521.155(d) / Plan de certification selon RAC 521.155(d)				<input checked="" type="checkbox"/>	
Applicant's remarks / Remarques du demandeur Application to EASA for a new STC. Identical to EASA STC 10060494.					
I hereby certify that the information contained herein is correct and complete. I agree to pay charges as prescribed in Part 1, Subpart 4 of the CARs (CAR 104-Charges). Je certifie que les renseignements figurant ci-dessus sont exacts et complets. Je m'engage à payer les redevances prescrites à la sous-partie 4 de la partie I du RAC (sous-partie 104 du RAC - Redevances).					
Name and Signature of Applicant / Nom et signature du demandeur JEFF CLARKE JH Clarke		Title / Poste VICE PRESIDENT		Date (yyyy-mm-dd) / Date (aaaa-mm-jj) 2018-12-03	



Application for Approval of Supplemental Type Certificate

Data protection: Personal data included in this application is processed by EASA pursuant to Regulation (EC) No 45/2001 on the protection of individuals with regard to the processing of personal data by the Community institutions and bodies and on the free movement of such data. It will be processed solely for the purposes of the performance, management and follow-up of the Application by the Agency, without prejudice to possible transmission to internal audit services, to the Court of Auditors, to the European Anti-Fraud Office (OLAF) for the purposes of safeguarding the financial interests of the European Union. The Applicant shall have the right of access to his personal data and the right to rectify any such data that is inaccurate or incomplete. Should the Applicant have any queries concerning the processing of his personal data, he shall address them to the Agency at the following address: dpo[at]easa.europa.eu. The Applicant shall have right of recourse at any time to the European Data Protection Supervisor.

1. Applicant's Reference

1.1 Your Reference

940

2. Applicant Address and Contact Data

2.1 Applicant Data

2.1.1 Name and Address (registered (business) name and address/legal seat of the company)

Applicant Number

300116

(A)DOA Reference

(Company) Name

Aero Design Ltd.

Street / Nr

9888A Malaspina Road

Post Code

V8A 0G3

City

Powell River, BC

Country

Canada

2.1.2 Contact Person (responsible for this application)

Title

☒ Mr ☐ Ms

Name

Clarke

First name

Jeff

Job title

Engineering Technologist

Phone/Fax

Phone: 604-483-2376

Fax: 604-483-2372

Email

jeff@aerodesign.ca

Important Note: First time applicants need to submit a copy of the company's **Business Registration** or similar legal document stating name and seat of the company together with the application. In case the applicant is not a company but a natural person, a copy of the person's **ID or passport** needs to be provided with the first application.

2.2 Billing Data (may be left blank, if same as 2.1 Applicant Data)

2.2.1 Billing Address (For the receipt of EASA Fees and Charges Invoices. EASA invoices are issued via post- mail to the address provided here.)

(Company) Name

Same as in section 2.1.1 (other name only in exceptional cases)

Street / Nr

PO Box

Post Code

City

Country

2.2.2 Contact Person (Responsible for ensuring the EASA terms of payment are honoured. An electronic invoice copy will be issued to the email address indicated here.)

Title

☐ Mr ☒ Ms

Name

Rekve

First name

Wanda

Job title

Office Manager

Phone/Fax

Phone: 604-483-2376

Fax: 604-483-2372

Email

wanda@aerodesign.ca

**Application for Approval of Supplemental Type Certificate****2.3 Shipping Data** (may be left blank, if same as 2.1 Applicant Data)**2.3.1 Certificate Delivery Address** (for the shipping of original EASA documents)

(Company) Name

Street / Nr

PO Box

Post Code

City

Country

2.3.2 Contact Person (Shipping)

Title

☐ Mr ☐ Ms

Name

First name

Job title

Phone/Fax

Email

**Application for Approval of Supplemental Type Certificate****3. Identification of Activity****Supplemental Type Certificate**

- ☒ Simple
☐ Standard
☐ Complex

For **revisions** to an STC, please complete an Application for **Major Change/Major Repair Design** or **Minor Change/Minor Repair Design**, as applicable.

For a **transfer** to a new STC holder, please complete an Application for **Transfer of Certificate**.

Including change to approved parts of Flight Manual (FM)

- ☒ Yes
☐ No

4. Product Identification**4.1 Fees & Charges Information****Large Aeroplanes**

- ☐ > 150 000 kg
☐ > 50 000 kg ≤ 150 000 kg
☐ > 22 000 kg ≤ 50 000 kg
☐ > 5 700 kg ≤ 22 000 kg (excluding commuter)

General Aviation

- ☐ > 5 700 kg ≤ 22 000 kg (including commuter)
☐ > 2 000 kg ≤ 5 700 kg
☐ ≤ 2 000 kg
☐ High Performance Aircraft (≤ 5 700 kg)
☐ Very Light Aeroplane
☐ Powered Sailplane
☐ Sailplane
☐ Light Sport Aeroplane

Rotorcraft, Balloons & Airships

- ☐ Large Rotorcraft
☒ Medium Rotorcraft
☐ Small Rotorcraft
☐ Very Light Rotorcraft
☐ Balloon
☐ Large Airship
☐ Medium Airship
☐ Small Airship

Propulsion

- ☐ Turbine Engine > 25 kN take-off thrust
☐ Turbine Engine ≤ 25 kN take-off thrust
☐ Turbine Engine > 2000 kW take-off power
☐ Turbine Engine ≤ 2000 kW take-off power
☐ Non-Turbine Engine
☐ CS-22.H, CS VLR App. B Engine
☐ Propeller for use on aircraft > 5 700 kg MTOW
☐ Propeller for use on aircraft ≤ 5 700 kg MTOW
☐ CS-22J Class Propeller
☐ APU (Parts & Appliances)

4.2 Applicability

Type Certificate Number

EASA.IM.R.146; FAA H11EU; TCCA H-87

Type Certificate Holder

Airbus Helicopters

Type Name

AS355

Model(s)

E, F, F1, F2, N, NP

4.3 Airworthiness Code

CS-27

**Application for Approval of Supplemental Type Certificate****4.4 European Light Aircraft**☐ Non-ELA☐ ELA 1☐ ELA 2

please consult the completion instructions for definitions of ELA 1 and ELA 2 aircraft

5. Original Approval(if applicable)**5.1 Third Country Approval/Project N°**

Approval/Project Number

SH08-16, Issue 5

Issued by

Transport Canada

Issued on

08 September 2014

6. Description**6.1 Title**

Installation of External Attachment Provisions and Cargo Basket.

6.2 Description

Installation of attachment fittings on the landing gear cross tubes. Installation of mounting beams on the attachment fittings. Installation of cargo basket on mounting beams.

6.3 Affected Areas
(including manuals)

See Certification Plan CP940, revision 1; Flight Manual Supplement FMS764.91, Instructions for Continued Airworthiness ICA764.90

6.4 Re-Investigations

None

6.5 JustificationTransport Canada has issued an STC
Identical to EASA STC 10060494.**7. Part 21 demonstration of eligibility****I declare that this application is:**☐ Within the current approved scope of work of the applicant's DOA/ADOA☐ Undertaken by another person than the applicant for, or holder of, a certificate (Part 21.A.2)

Name

(Company) Name

DOA/ADOA N°

DOA/ADOA N°

☐ Following an application for Design Organisation Approval (FO.DOA.00080) or Alternative Procedures to Design Organisation Approval (FO.DOA.00081).

Application Date

Project N°

if known

☐ Following an application for a change to the scope of work via EASA Form FO.DOA.00081 or FO.DOA.00082.

Application Date

Project N°

if known

☒ **Without DOA/ADOA**☐ Use of Article 8.2 of Regulation 748/2012☐ Covered by a Certification Programme in accordance with 21.A20(c) for ELA 1 aircraft or engine/propeller



Application for Approval of Supplemental Type Certificate

installed on an ELA 1 aircraft.


☒ Bilateral Agreement/Working Arrangement is in force

**Application for Approval of Supplemental Type Certificate****8. Applicant's declaration and acceptance of the General Conditions and Terms of Payment**

I declare that I have the legal capacity to submit this application to EASA and that all information provided in this application form is correct and complete.

I have understood that I am submitting an application for which fees or charges will be levied by EASA in accordance with Commission Regulation (EC) on the fees and charges levied by the European Aviation Safety Agency, as last amended and available from <http://easa.europa.eu/> Legislation > Fees & Charges.

I acknowledge that I have read and understood the Agency's Terms of Payment (see <http://easa.europa.eu/> Legislation > Fees & Charges>General Conditions and Terms of Payment) and agree to abide by them. I declare to be aware that fees or charges, as well as all relevant travel costs must be paid whether or not the application is successful and that they might not be refundable. Moreover, I declare that I am aware of the consequences of non-payment.

2018-12-03 POWELL RIVER, BC, CANADA	JEFF CLARKE VICE PRESIDENT	
Date/Location	Name	Signature

Important Note: EASA cannot accept applications without signature. Please make sure that you sign the application.

This Application should be sent by fax, e-mail or regular mail to:

European Aviation Safety Agency
Applications and Outsourcing Services Department
Postfach 10 12 53
D-50452 Köln
Germany

Fax: +49 – (0)221 - 89990 ext. 4458
E-mail: STC@easa.europa.eu

Completion Instructions

Completion
Instructions

Please double-click on the icon to
access the completion instructions



WINGS
ENGINEERING
LIMITED
8731 Allison Street
Richmond, BC V6Y 3H9



Aero Design Ltd
9888A Malaspina Road
Powell River, BC
V8A 0G3
Attn: Jeff Clarke



Jeff Clarke, Vice President
Aero Design Ltd.
9888A Malaspina Road
Powell River, BC, V8A 0G3
Tel: 604.483.2376
jeff@aerodesign.ca

4 April 2016

Cc: Jorge.Canal@tc.gc.ca, OPI, Aircraft Certification, Vancouver Regional Office, TCCA

**One-off Custom Cargo Basket Assembly PN 94010, SN 94001-57
Compliance Package for SH08-16 updated per Aero Design CP940.90-0-04Apr2016
Transmittal Letter; TN1604-NC-04Apr2016 with original copies noted below**

Dear Mr. Clarke,

Wings Engineering has supported Aero Design's CAR 521 Division VIII responsibilities for the approved changes to SH08-16 for the one-off custom cargo basket noted.

Included with this letter are the documents bearing the original Transport Canada signatures:

DCL940-1, Rev 2, 04 Apr 2016 Document Control List, EL Basket Installation - Config F

DCL940-3, Rev 2, 04 Apr 2016 Document Control List, EL Basket Assembly Dwgs &
Design Compliance Documents

SI 940.91, Rev 0, 04 Apr 2016 Service Instruction (Cover page only)

In addition to the above originals a full electronic file for all the documents noted per Master Technical Document List MTLT-CP940.90-0-04Apr2016 has also been supplied.

The transfer of this approval in the name of another person requires the prior approval from the Minister in accordance with section 521.357 of the Canadian Aviation Regulations (CAR).

Embodiment of modifications requiring certification of detail part fabrication and installation, in accordance with approved data identified on the certificate, is considered to be a maintenance activity and the requirements of subsection 571.06(4) of the CARs will apply.

A Canadian Holder is required to fulfill the responsibilities of a Design Approval Document Holder in accordance with Division VIII of subpart 521 of the CAR, including the reporting of any service difficulties experienced with their product. Therefore, should you become aware of any defect, malfunction or failure resulting from the design change, it is your responsibility to submit a Service Difficulty Report to Transport Canada.

Thank you for the work.

Yours truly,

A handwritten signature in black ink, appearing to read "James Tinson", is written over a horizontal line. Below the signature, the text "James Tinson PEng, FEC, DAR" and "President - Wings Engineering Limited" is printed in a standard sans-serif font.

James Tinson PEng, FEC, DAR
President - Wings Engineering Limited

DOCUMENT CONTROL LIST

(Listing of Current Approved and Accepted Documents)

DCL REV.	DOCUMENT NO.	DOC REV.	DOC REV. DATE	DOCUMENT CONTENT
APPROVAL DOCUMENT				
1	SH08-16	5	08/09/2014	TCCA STC Approval, approval date 11/04/2008
0	SR02680NY	0	06/08/2012	FAA STC Approval, approval date 25/02/2009
DOCUMENTS SITED ON THE APPROVAL DOCUMENT				
1	94001	1	08/07/2014	Quick Release Cargo Basket Installation
1	ICA764.90	6	15/07/2014	Instructions for Continued Airworthiness
1	FMS764.91	4	16/07/2014	Flight Manual Supplement
FABRICATION AND OTHER DOCUMENTS				
2	DCL940-3	2	04/04/2016	Document Control List for Quick Release Cargo Basket Assembly

DCL REVISION CONTROL				
DCL REV.	DCL REV. DATE	REVISION BY	APPROVED BY	DESCRIPTION
0	03/11/2011	Richard Rathwell	TCCA - PNR	Original – added to SH08-16 Issue 4
1	17/07/2014	Jeff Clarke	TCCA - PNR	Documents updated for new address.
2	04/04/2016	Jeff Clarke	DAR 304	DCL format updated. DCL940-3 updated.

APPROVAL:



Aero Design Ltd.

9888A Malaspina Road
Powell River, BC, Canada, V8A 0G3
Tel: 604.483.2376 www.aerodesign.ca

Airbus Helicopters (Eurocopter)
AS350 & AS355 Series
Quick Release Cargo Basket
Extra-Long Basket Installation (Configuration F)

Document Control List Number

DCL940-1

Revision

2

Sheet

1 of 1

DOCUMENT CONTROL LIST

(The Current Approval/Configuration Control List for Fabricated Parts, Assemblies and Other Documents and a Complete Listing of the Applicable Design Compliance Documents)

DCL REV.	DOCUMENT NO.	DOC REV.	DOC REV. DATE	DOCUMENT CONTENT
FABRICATION AND ASSEMBLY DOCUMENTS				
1	94010	1	10/07/2014	Cargo Basket Assembly
1	94011	1	11/07/2014	Basket Fabrication
1	94012	1	10/07/2014	Lid Fabrication
1	94023	1	11/07/2014	Attachment Hoop
1	94027	1	10/07/2014	Placard
1	94030	1	11/07/2014	Hoop
1	49215	1	13/03/2014	Spacer
1	49216	1	13/03/2014	Spacer
1	84240	0	21/05/2014	Lid Brace Installation
1	84255	2	13/03/2014	Handle Assembly
1	84261	2	13/03/2014	Handle Bar Assembly
1	84262	2	14/02/2014	Basket Handle Provisions Assembly
1	84263	0	14/02/2014	Lid Handle Provisions Assembly
1	84265	2	13/03/2014	Handle Lever
1	84267	1	13/03/2014	Handle Bracket
1	84272	1	13/03/2014	Bushing

DCL REVISION CONTROL				
DCL REV.	DCL REV. DATE	REVISION BY	APPROVED BY	DESCRIPTION
0	03/11/2011	Richard Rathwell	TCCA - PNR	Original
1	17/07/2014	Jeff Clarke	TCCA - PNR	Update to new address. Minor changes to fabrication drawings.
2	04/04/2016	Jeff Clarke	DAR 304	DCL format updated. One-off custom basket assembly added

<p>APPROVAL:</p> <div style="border: 2px solid red; padding: 5px; margin: 10px;"> <p style="text-align: center; color: red;">CANADA</p> <p style="text-align: center; color: red;">DEPARTMENT OF TRANSPORT AIRCRAFT CERTIFICATION BRANCH</p> <p style="text-align: center;">APR 04 2016</p> <p style="text-align: center; color: red;">APPROVED</p> <p>BY: <u>[Signature]</u> DAR 304</p> <p>CERT. NO.: <u>51408-16</u></p> <p>ISSUE NO.: <u>5</u></p> </div>	<div style="text-align: center;">  <p>Aero Design Ltd. 9888A Malaspina Road Powell River, BC, Canada, V8A 0G3 Tel: 604.483.2376 www.aerodesign.ca</p> </div> <div style="text-align: center; margin-top: 10px;"> <p>Airbus Helicopters (Eurocopter) AS350 & AS355 Series Quick Release Cargo Basket Extra-Long Basket Assembly</p> </div> <table border="1" style="width: 100%; margin-top: 10px;"> <tr> <td style="width: 50%;">Document Control List Number</td> <td style="width: 25%;">Revision</td> <td style="width: 25%;">Sheet</td> </tr> <tr> <td style="text-align: center; font-size: 24px;">DCL940-3</td> <td style="text-align: center; font-size: 24px;">2</td> <td style="text-align: center; font-size: 24px;">1 of 2</td> </tr> </table>	Document Control List Number	Revision	Sheet	DCL940-3	2	1 of 2
Document Control List Number	Revision	Sheet					
DCL940-3	2	1 of 2					

DOCUMENT CONTROL LIST

[illegible]

Document Control List Number	Revision	Sheet
DCL940-3	2	2 of 2

SERVICE INSTRUCTION

SI 940.91

AIRBUS HELICOPTERS (EUROCOPTER)

AS350 & AS355 SERIES

QUICK RELEASE CARGO BASKET

MODEL 940, EXTRA-LONG BASKET ASSEMBLY

ONE-OFF CUSTOM BASKET ASSEMBLY

REINFORCED STRUCTURE WITH CUTOUTS AND COVERS

P/N 94010, S/N 94001-57

FOR PORTABLE SURVEY EQUIPMENT

STRUCTURAL PROVISIONS ONLY

Prepared by: Jeff Clarke, P.Tech. (Eng.)

Revision 0, 04 April 2016

CANADA
DEPARTMENT OF TRANSPORT
AIRCRAFT CERTIFICATION
BRANCH
APR 04 2016
APPROVED
BY: <i>James Fiverson</i> DAR 304
CERT. NO.: SH08-16
ISSUE NO.: 5

Aero Design Ltd.



9888A Malaspina Road, Powell River, BC, V8A 0G3

Phone: 604-483-2376

Fax: 604-483-2372

www.aerodesign.ca

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13 April 2015

Transport Canada
Aircraft Certification Division
11th Floor, Canada Place
9700 Jasper Avenue
Edmonton, Alberta
T5J 4E6

Attn: Jack Staal

Your File :
Our File : 940

Re: Airbus Helicopters AS350/AS355 Cargo Baskets – FAA STC Amendment

Jack,

Please find attached the following documents in support of application for revision to
FAA STC SR02680NY:

Modification Approval Request Application Form		
FAA STC Application Form 8110-12		
FAA STC – New address and transfer endorsed	SR02680NY	Amdt. 06/08/12
Letter authorizing transfer endorsement of STC		
Transport Canada STC	SH08-16	Issue 5
Certification Plan	CP940	Rev. 1
Instructions for Continued Airworthiness	ICA764.90	Rev. 6
MSI 53 Review for ICA764.90 Rev. 6		
Flight Manual Supplement	FMS764.91	Rev. 4
Document Control List (Provisions Installation)	DCL786-1	Rev. 4
Attachment Provisions Installation	78602	Rev. 1
Attachment Provisions Installation (Cargo Pod Compatible)	78603	Rev. 1
Document Control List (Provision Fabrication)	DCL786-3	Rev. 4
Clamp Fabrication	78620	Rev. 4
Clamp Fabrication (Cargo Pod Compatible)	78621	Rev. 1
Aft Beam Fabrication	78633	Rev. 1
Forward Beam Fabrication	78634	Rev. 1
Document Control List (Short Basket Installation)	DCL776-1	Rev. 4
Cargo Basket Installation (Short Basket)	77601	Rev. 4
Document Control List (Short Basket Assembly)	DCL776-3	Rev. 3
Cargo Basket Assembly	77610	Rev. 2
Basket Fabrication	77611	Rev. 2
Lid Fabrication	77612	Rev. 2
Placard	77627	Rev. 1



Document Control List (Medium Basket Installation)	DCL764-1	Rev. 4
Cargo Basket Installation (Medium Basket)	76401	Rev. 4
Document Control List (Medium Basket Assembly)	DCL764-3	Rev. 4
Cargo Basket Assembly	76410	Rev. 3
Basket Fabrication	76411	Rev. 3
Lid Fabrication	69812	Rev. 4
Hoop	76421	Rev. 1
Attachment Hoop	76422	Rev. 1
Attachment Hoop	76423	Rev. 3
Placard	76427	Rev. 2
Document Control List (Long Basket Installation)	DCL784-1	Rev. 4
Cargo Basket Installation (Long Basket)	78401	Rev. 4
Document Control List (Long Basket Assembly)	DCL784-3	Rev. 4
Cargo Basket Assembly	78410	Rev. 2
Basket Fabrication	78411	Rev. 3
Lid Fabrication	78412	Rev. 2
Placard	78427	Rev. 2
Document Control List (XL Basket Installation)	DCL940-1	Rev. 1
Cargo Basket Installation (XL Basket)	94001	Rev. 1
Document Control List (XL Basket Assembly)	DCL940-3	Rev. 1
Cargo Basket Assembly	94010	Rev. 1
Basket Fabrication	94011	Rev. 1
Lid Fabrication	94012	Rev. 1
Attachment Hoop	94023	Rev. 1
Placard	94027	Rev. 1
Hoop	94030	Rev. 1
Document Control List (Modifications)	DCL704	Rev. 9
Front End Cutout – AS350 / AS355	70406	Rev. 3
(remainder of drawings on this DCL submitted with amendment to STC SR02991NY)		

A CD with the above data is included for submission to the FAA. Paper copies of common component drawings (drawings 362XX and 842XX) used on all Aero Design baskets, listed on the assembly DCLs, are not included with this submission. Paper copies are available on request.

Regards,

Jeff Clarke, P.Tech.(Eng.)
Vice President

Encl.



Aero Design Ltd.
9888A Malaspina Road
Powell River, BC, Canada
V8A 0G3

Tel: 604.483.2376
Fax: 604.483.2372
www.aerodesign.ca

13 April 2015

Department of Transportation
Federal Aviation Administration
New York Aircraft Certification Office ANE-170
1600 Stewart Avenue, Suite 410
Westbury, NY, 11590
USA

Attention: Mr. Ray Reinhardt, Program Manager.

Re: FAA SR02680NY, Airbus Helicopters AS350/AS355 Cargo Basket Installations

Please find enclosed original US STC SR02680NY, endorsed on the back with the new address for Aero Design Ltd. Mr. Clarke is vice president of Aero Design Ltd. and as such is authorized to make this endorsement on behalf of the company.

If you need anything further please feel free to contact me.

Regards,

Jason Rekve
President

Encl.

CC: Jack Staal, Transport Canada



U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

FORM APPROVED
OMB No. 2120-0018
EXP DATE: 11/30/2013

APPLICATION FOR TYPE CERTIFICATE, PRODUCTION CERTIFICATE, OR SUPPLEMENTAL TYPE
CERTIFICATE

1. Name Of Applicant Aero Design Ltd.		2. Application made for : <input type="checkbox"/> Type Certificate <input type="checkbox"/> Production Certificate <input type="checkbox"/> Supplemental Type Certificate <input type="checkbox"/> Amended Type Certificate <input checked="" type="checkbox"/> Amended Supplemental Type Certificate		3. Product Involved <input checked="" type="checkbox"/> Aircraft <input type="checkbox"/> Engine <input type="checkbox"/> Propeller	
4. Address 9888A Malaspina Road		b. City State Powell River BC, Canada		c. Zip Code V8A 0G3	
5. TYPE CERTIFICATE (Complete item 5a below)					
a. Model designation(s) (All models listed are to be completely described in the required technical data, including drawings representing the design, material, specifications, construction, and performance of the aircraft, aircraft engine, propeller which is the subject of this application.)					
6. PRODUCTION CERTIFICATE (Complete items 6a-c below. Submit with this form, in manual form, one copy of quality control data or changes thereto covering new products, as required by applicable FAR.)					
a. Factory address (if different from above)		b. Application is for <input type="checkbox"/> New production certificate <input type="checkbox"/> Additions to production Certificate (Give P.C. No.)		P.C. No.	
c. Applicant is holder of or a licensee under a Type Certificate or a Supplemental Type Certificate (Attach evidence of licensing agreement and give certificate number)				T.C./S.T.C. No.	
7. SUPPLEMENTAL TYPE CERTIFICATE (Complete items 7a-d below)					
a. Make and model designation of product to be modified Airbus Helicopters AS350 B, B1, B2, B3, BA, D; AS355 E, F, F1, F2, N, NP					
b. Description of modification Amend STC SR02680NY - Installation of mounting provisions and cargo basket: Installation of mounting provisions on landing gear cross tubes; Installation of cargo basket (4 different sizes) on mounting provisions. Amendment is to update configurations and update address of holder.					
c. Will data be available for sale or release to other persons? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		d. Will parts be manufactured for sale? (Ref. FAR 21.303) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
8. CERTIFICATION - I certify that the above statements are true. <input checked="" type="checkbox"/>					
Signature of certifying official 		Title Vice President		Date 13 April 2015	



DESIGN CHANGE APPROVAL APPLICATION



DEMANDE D'APPROBATION D'UNE MODIFICATION DE LA CONCEPTION

Legal name and address of applicant Nom et adresse légal du demandeur		Legal name and address of prospective holder Nom et adresse légal du titulaire éventuel		Name and address for billing purposes (if different than applicant) Nom et adresse aux fins de facturation (si différent du demandeur)	
Aero Design Ltd. 9888A Malaspina Road Powell River, BC, Canada V8A 0G3		Aero Design Ltd. 9888A Malaspina Road Powell River, BC, Canada V8A 0G3			
Identification of aeronautical product / Identification du produit aéronautique					
Make / Marque		Model / Modèle		Registration / Immatriculation	
Airbus Helicopters		AS350, AS355 (all)		All eligible	
				Serial No. / N° du série	
				All eligible	
				Part No. / N° de la pièce	
Request for (check appropriate box) / Objet de la demande (Cochez les carrés selon le cas)				Type Design Examination by Foreign Authority Examen de la définition de type par autorité étrangère	
<input type="checkbox"/> STC CTS				<input type="checkbox"/> Repair Design Approval (RDA) Approbation de la conception de réparation (ACR)	
<input type="checkbox"/> STC (single serial number) CTS (numéro de série simple)				<input type="checkbox"/> Repair Design Approval - Process Repair ACR - Processus de réparation	
<input type="checkbox"/> STC (multiple serial numbers) CTS (numéros de série multiples)				<input type="checkbox"/> Part Design Approval (PDA) Approbation de la conception de pièce (ACP)	
<input type="checkbox"/> Type Certificate Revision Revision de certificat de type				<input checked="" type="checkbox"/> Application to a foreign authority is requested La demande à une autorité étrangère est demandée.	
<input checked="" type="checkbox"/> Revision Révision				<input type="checkbox"/> Type design examination of foreign change Examen de la définition de type modification étrangère	
No. N° SH08-16				Identify Identifier FAA - SR02680NY	
Current Issue Édition active 5					
<input type="checkbox"/> Restricted Category Type of Operation Catégorie restreinte Type d'opération					
Title and brief description of modification, repair or replacement part, including effects of changes (use additional pages if necessary). Refer to CAR 521.155(b)(i) for details. Titre et brève description de la modification, de la réparation ou de la pièce de rechange, y compris les effets des changements (utiliser des feuilles supplémentaires si nécessaire). Référez-vous à RAC 521.155(b)(i) pour des détails.					
Installation of mounting provisions and cargo basket. Installation of mounting provisions on landing gear cross tubes. Installation of cargo basket (4 different sizes) on mounting provisions.					
Applicable Type Certificate (TC) / Certificat de type (CT) pertinent					
TC No. / N° de CT		Issue No. / N° de l'édition		Identify State of Design / Identifier l'état de conception	
H-83 / H-87 (H9EU / H11EU)		22 / 9 (23 / 11)		EASA	
The applicant is responsible for the control of product manufacture / Le demandeur est responsable du contrôle de la fabrication du produit					
<input checked="" type="checkbox"/> Yes Oui					
<input type="checkbox"/> No Non					
If no, identify who is responsible Si non, identifier qui est responsable					
Documentation to be submitted Documentation à soumettre				Applicant Demandeur	
				Submitted Soumis	
				Yes Oui	
				No Non	
Proposed certification basis Proposition de base de certification					
Certification plan in accordance with CAR 521.155(d) Plan de certification selon RAC 521.155(d)					
Applicant's remarks / Remarques du demandeur					
Amendment is to update configurations and update address of holder.					
I hereby certify that the information contained herein is correct and complete. I agree to pay charges as prescribed in Part 1, Subpart 4 of the CARs (CAR 104-Charges). Je certifie que les renseignements figurant ci-dessus sont exacts et complets. Je m'engage à payer les redevances prescrites à la sous-partie 4 de la partie I du RAC (sous-partie 104 du RAC - Redevances).					
JEFF CLARKE		VICE PRESIDENT		2015-04-13	
Name and Signature of Applicant / Nom et signature du demandeur		Title / Poste		Date (yyyy-mm-dd) / Date (aaaa-mm-jj)	

DOCUMENT CONTROL LIST

DOCUMENT NO.	DOCUMENT CONTENT	REVISION
INSTALLATION DOCUMENTS		
✓ 76401	Quick Release Cargo Basket Installation	4
✓ ICA764.90	Instructions for Continued Airworthiness	6
✓ FMS764.91	Flight Manual Supplement	4
FABRICATION DOCUMENTS		
DCL764-3	Document Control List for Quick Release Cargo Basket Assembly	4

APPROVAL:

	Transport Canada	Transports Canada
AIRCRAFT CERTIFICATION DIVISION		
APPROVED		
By 		
Appr'l No. <u>SH08-16</u>		
Appr'l Date <u>2008-04-11</u>		
Issue No. <u>5</u>		
Issue Date <u>2014-09-08</u>		
YY - MM - DD		

ORIGINAL DATE:

06 March 2008

REVISION DATE:

17 July 2014



Aero Design Ltd.

9888A Malaspina Road
Powell River, BC, Canada, V8A 0G3
Tel: 604.483.2376 www.aerodesign.ca

SHEET 1 OF 1







Airbus Helicopters (Eurocopter)
AS350 & AS355 Series
Quick Release Cargo Basket
Medium Basket Installation

DCL764-1

Rev.

4

DOCUMENT CONTROL LIST

DOCUMENT NO.	DOCUMENT CONTENT	REVISION										
FABRICATION DOCUMENTS												
✓ 76410	Cargo Basket Assembly	3										
✓ 76411	Basket Fabrication	3										
✓ 69812	Lid Fabrication	4										
✓ 76421	Hoop	1										
✓ 76422	Attachment Hoop	1										
✓ 76423	Attachment Hoop	3										
✓ 76427	Placard	2										
✓ 49215	Spacer	1										
✓ 49216	Spacer	1										
✓ 69823	Lug	2										
✓ 84240	Lid Brace Installation	0										
✓ 84255	Handle Assembly	2										
✓ 84261	Handle Bar Assembly	2										
✓ 84262	Basket Handle Provisions Assembly	2										
✓ 84263	Lid Handle Provisions Assembly	0										
✓ 84265	Handle Lever	2										
✓ 84267	Handle Bracket	1										
✓ 84272	Bushing	1										
✓ 36273	Lid Bracket	2										
✓ 36274	Bushing	3										
✓ 36275	Bushing	4										
✓ 36277	Handle Bar	1										
✓ 36278	Spring	3										
✓ 36280	Lid Brace Assembly	3										
ENGINEERING DOCUMENTS												
ER764.01	Engineering Report	0										
TR764.02	Test Plan and Report	0										
FTP764.03	Flight Test Plan and Report	0										
ER764.04	Engineering Report	0										
ER764.05	Engineering Report	0										
	Flight Test Report – Transport Canada											
<table border="1"> <tr> <td colspan="2"> APPROVAL:  Transport Canada <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> AIRCRAFT CERTIFICATION DIVISION APPROVED By <u>[Signature]</u> Appr'l No. <u>SH08-16</u> Appr'l Date <u>2008-04-11</u> Issue No. <u>5</u> Issue Date <u>2014-09-08</u> YY-MM-DD </div> </td> <td> ORIGINAL DATE: 06 March 2008 REVISION DATE: 17 July 2014 </td> <td>  Aero Design Ltd. 9888A Malaspina Road Powell River, BC, Canada, V8A 0G3 Tel: 604.483.2376 www.aerodesign.ca </td> </tr> <tr> <td colspan="2"> SHEET 1 OF 1 </td> <td> Airbus Helicopters (Eurocopter) AS350 & AS355 Series Quick Release Cargo Basket Medium Basket Assembly </td> </tr> <tr> <td colspan="2"> DCL764-3 </td> <td> Rev. 4 </td> </tr> </table>			APPROVAL:  Transport Canada <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> AIRCRAFT CERTIFICATION DIVISION APPROVED By <u>[Signature]</u> Appr'l No. <u>SH08-16</u> Appr'l Date <u>2008-04-11</u> Issue No. <u>5</u> Issue Date <u>2014-09-08</u> YY-MM-DD </div>		ORIGINAL DATE: 06 March 2008 REVISION DATE: 17 July 2014	 Aero Design Ltd. 9888A Malaspina Road Powell River, BC, Canada, V8A 0G3 Tel: 604.483.2376 www.aerodesign.ca	SHEET 1 OF 1		Airbus Helicopters (Eurocopter) AS350 & AS355 Series Quick Release Cargo Basket Medium Basket Assembly	DCL764-3		Rev. 4
APPROVAL:  Transport Canada <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> AIRCRAFT CERTIFICATION DIVISION APPROVED By <u>[Signature]</u> Appr'l No. <u>SH08-16</u> Appr'l Date <u>2008-04-11</u> Issue No. <u>5</u> Issue Date <u>2014-09-08</u> YY-MM-DD </div>		ORIGINAL DATE: 06 March 2008 REVISION DATE: 17 July 2014	 Aero Design Ltd. 9888A Malaspina Road Powell River, BC, Canada, V8A 0G3 Tel: 604.483.2376 www.aerodesign.ca									
SHEET 1 OF 1		Airbus Helicopters (Eurocopter) AS350 & AS355 Series Quick Release Cargo Basket Medium Basket Assembly										
DCL764-3		Rev. 4										

DOCUMENT CONTROL LIST

DOCUMENT NO.	DOCUMENT CONTENT	REVISION
INSTALLATION DOCUMENTS		
✓ 77601	Quick Release Cargo Basket Installation	4
✓ ICA764.90	Instructions for Continued Airworthiness	6
✓ FMS764.91	Flight Manual Supplement	4
FABRICATION DOCUMENTS		
DCL776-3	Document Control List for Quick Release Cargo Basket Assembly	3

APPROVAL:

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SHEET 1 OF 1

Airbus Helicopters (Eurocopter)

AS350 & AS355 Series

Quick Release Cargo Basket

Short Basket Installation



DCL776-1

Rev.

4

DOCUMENT CONTROL LIST

DOCUMENT NO.	DOCUMENT CONTENT	REVISION
FABRICATION DOCUMENTS		
✓ 77610	Cargo Basket Assembly	2
✓ 77611	Basket Fabrication	2
✓ 77612	Lid Fabrication	2
✓ 77627	Placard	1
✓ 76421	Hoop	1
✓ 76422	Attachment Hoop	1
✓ 49215	Spacer	1
✓ 49216	Spacer	1
✓ 69823	Basket Components - Lug	2
✓ 84240	Lid Brace Installation	0
✓ 84255	Handle Assembly	2
✓ 84261	Handle Bar Assembly	2
✓ 84262	Basket Handle Provisions Assembly	2
✓ 84263	Lid Handle Provisions Assembly	0
✓ 84265	Handle Lever	2
✓ 84267	Handle Bracket	1
✓ 84272	Bushing	1
✓ 36273	Lid Bracket	2
✓ 36274	Bushing	3
✓ 36275	Bushing	4
✓ 36277	Handle Bar	1
✓ 36278	Spring	3
✓ 36280	Lid Brace Assembly	3
ENGINEERING DOCUMENTS		
ER764.01	Engineering Report	0
TR764.02	Test Plan and Report	0
FTP764.03	Flight Test Plan and Report	0
ER764.04	Engineering Report	0
ER764.05	Engineering Report	0
	Flight Test Report – Transport Canada	

APPROVAL:  Transport Canada Transports Canada AIRCRAFT CERTIFICATION DIVISION APPROVED By <u>[Signature]</u> Appr'l No. <u>SH08-16</u> Appr'l Date <u>2008-04-11</u> Issue No. <u>5</u> Issue Date <u>2014-09-08</u> YY-MM-DD		ORIGINAL DATE: 06 March 2008 REVISION DATE: 17 July 2014	 Aero Design Ltd. 9888A Malaspina Road Powell River, BC, Canada, V8A 0G3 Tel: 604.483.2376 www.aerodesign.ca
		SHEET 1 OF 1	Airbus Helicopters (Eurocopter) AS350 & AS355 Series Quick Release Cargo Basket Short Basket Assembly
		DCL776-3	Rev. 3

DOCUMENT CONTROL LIST

DOCUMENT NO.	DOCUMENT CONTENT	REVISION
INSTALLATION DOCUMENTS		
✓ 78401	Quick Release Cargo Basket Installation	4
✓ ICA764.90	Instructions for Continued Airworthiness	6
✓ FMS764.91	Flight Manual Supplement	4
FABRICATION DOCUMENTS		
DCL784-3	Document Control List for Quick Release Cargo Basket Assembly	4

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By		
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SHEET 1 OF 1

Airbus Helicopters (Eurocopter)
AS350 & AS355 Series
Quick Release Cargo Basket
Long Basket Installation



DCL784-1

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DOCUMENT CONTROL LIST

DOCUMENT NO.	DOCUMENT CONTENT	REVISION
FABRICATION DOCUMENTS		
✓ 78410	Cargo Basket Assembly	2
✓ 78411	Basket Fabrication	3
✓ 78412	Lid Fabrication	2
✓ 78427	Placard	2
✓ 76421	Hoop	1
✓ 76423	Attachment Hoop	3
✓ 49215	Spacer	1
✓ 49216	Spacer	1
✓ 84240	Lid Brace Installation	0
✓ 84255	Handle Assembly	2
✓ 84261	Handle Bar Assembly	2
✓ 84262	Basket Handle Provisions Assembly	2
✓ 84263	Lid Handle Provisions Assembly	0
✓ 84265	Handle Lever	2
✓ 84267	Handle Bracket	1
✓ 84272	Bushing	1
✓ 36273	Lid Bracket	2
✓ 36274	Bushing	3
✓ 36275	Bushing	4
✓ 36277	Handle Bar	1
✓ 36278	Spring	3
✓ 36280	Lid Brace Assembly	3
ENGINEERING DOCUMENTS		
ER764.01	Engineering Report	0
TR764.02	Test Plan and Report	0
FTP764.03	Flight Test Plan and Report	0
ER764.04	Engineering Report	0
ER764.05	Engineering Report	0
	Flight Test Report – Transport Canada	

APPROVAL:  Transport Canada Transports Canada AIRCRAFT CERTIFICATION DIVISION APPROVED By <u>[Signature]</u> Appr'l No. <u>SH08-16</u> Appr'l Date <u>2008-04-11</u> Issue No. <u>5</u> Issue Date <u>2014-09-08</u> YY - MM - DD	ORIGINAL DATE: 06 March 2008 REVISION DATE: 17 July 2014	 Aero Design Ltd. 9888A Malaspina Road Powell River, BC, Canada, V8A 0G3 Tel: 604.483.2376 www.aerodesign.ca
	SHEET 1 OF 1	Airbus Helicopters (Eurocopter) AS350 & AS355 Series Quick Release Cargo Basket Long Basket Assembly
	<div style="text-align: center; font-size: 2em; font-weight: bold;">DCL784-3</div>	Rev. <div style="text-align: center; font-size: 2em; font-weight: bold;">4</div>

DOCUMENT CONTROL LIST

DOCUMENT NO.	DOCUMENT CONTENT	REVISION
INSTALLATION DOCUMENTS		
✓ 78602	Attachment Provisions Installation	1
✓ 78603	Attachment Provisions Installation (Cargo Pod Compatible)	1
✓ ICA764.90	Instructions for Continued Airworthiness	6
FABRICATION DOCUMENTS		
DCL786-3	Document Control List for Attachment Provisions Assembly	4

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Appr'l No. <u>SH08-16</u>		
Appr'l Date <u>2008-04-11</u>		
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YY - MM - DD		

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**Airbus Helicopters (Eurocopter)
AS350 & AS355 Series
Attachment Provisions
Installation**

DCL786-1

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4

DOCUMENT CONTROL LIST

DOCUMENT NO.	DOCUMENT CONTENT	REVISION									
FABRICATION DOCUMENTS											
✓ 78620	Clamp Fabrication	4									
✓ 78621	Clamp Fabrication (Cargo Pod Compatible)	1									
✓ 78633	Aft Beam Fabrication	1									
✓ 78634	Forward Beam Fabrication	1									
ENGINEERING DOCUMENTS											
ER764.01	Engineering Report	0									
TR764.02	Test Plan and Report	0									
FTP764.03	Flight Test Plan and Report	0									
ER764.04	Engineering Report	0									
ER764.05	Engineering Report	0									
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APPROVAL:  <div style="display: flex; justify-content: space-between;"> <div>Transport Canada</div> <div>Transports Canada</div> </div> <div style="text-align: center;"> AIRCRAFT CERTIFICATION DIVISION APPROVED By  Appr'l No. <u>SH08-16</u> Appr'l Date <u>2008-04-11</u> Issue No. <u>5</u> Issue Date <u>2014-09-08</u> <small>YY - MM - DD</small> </div>	ORIGINAL DATE: 06 March 2008 REVISION DATE: 17 July 2014	 Aero Design Ltd. 9888A Malaspina Road Powell River, BC, Canada, V8A 0G3 Tel: 604.483.2376 www.aerodesign.ca									
SHEET 1 OF 1		Airbus Helicopters (Eurocopter) AS350 & AS355 Series Attachment Provisions Assembly									
DCL786-3		Rev. <div style="font-size: 2em;">4</div>									



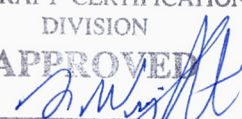
DOCUMENT CONTROL LIST

DOCUMENT NO.	DOCUMENT CONTENT	REVISION
INSTALLATION DOCUMENTS		
✓ 94001	Quick Release Cargo Basket Installation	1
✓ ICA764.90	Instructions for Continued Airworthiness	6
✓ FMS764.91	Flight Manual Supplement	4
FABRICATION DOCUMENTS		
DCL940-3	Document Control List for Quick Release Cargo Basket Assembly	1

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SHEET 1 OF 1		Airbus Helicopters (Eurocopter) AS350 & AS355 Series Quick Release Cargo Basket Extra-Long Basket Installation	
DCL940-1		Rev. 1	

DOCUMENT CONTROL LIST


DOCUMENT NO.	DOCUMENT CONTENT	REVISION
FABRICATION DOCUMENTS		
✓ 94010	Cargo Basket Assembly	1
✓ 94011	Basket Fabrication	1
✓ 94012	Lid Fabrication	1
✓ 94023	Attachment Hoop	1
✓ 94027	Placard	1
✓ 94030	Hoop	1
✓ 49215	Spacer	1
✓ 49216	Spacer	1
✓ 84240	Lid Brace Installation	0
✓ 84255	Handle Assembly	2
✓ 84261	Handle Bar Assembly	2
✓ 84262	Basket Handle Provisions Assembly	2
✓ 84263	Lid Handle Provisions Assembly	0
✓ 84265	Handle Lever	2
✓ 84267	Handle Bracket	1
✓ 84272	Bushing	1
✓ 36273	Lid Bracket	2
✓ 36274	Bushing	3
✓ 36275	Bushing	4
✓ 36277	Handle Bar	1
✓ 36278	Spring	3
✓ 36280	Lid Brace Assembly	3
ENGINEERING DOCUMENTS		
ER940.01	Engineering Report	0
ER842.01	Engineering Report	0
FTP940.03	Flight Test Plan	0
FTR940.03	Flight Test Report	1
	Flight Test Report – Transport Canada	

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 Transport Canada Transport Canada AIRCRAFT CERTIFICATION DIVISION APPROVED By  Appr'l No. <u>SH08-16</u> Appr'l Date <u>2008-04-11</u> Issue No. <u>5</u> Issue Date <u>2014-09-03</u> YY - MM - DD	REVISION DATE: 17 July 2014	
SHEET 1 OF 1		Airbus Helicopters (Eurocopter) AS350 & AS355 Series Quick Release Cargo Basket Extra-Long Basket Assembly
DCL940-3		Rev. 1

DOCUMENT CONTROL LIST

DOCUMENT NO.	DOCUMENT CONTENT	REVISION
INSTALLATION DOCUMENTS		
✓ 70408	Installation, Hangar Wheel	1
FABRICATION DOCUMENTS		
N/A 70401	Open Forward End Modification (Bell 206L/407 Fixed and McDonnell Douglas MD600N Quick Release Only)	1 N/A
✓ 70402	Lid Door Modification	2
✓ 70403	Auxiliary Latch Modification	5
N/A 70404	Open Forward End Modification (Bell 206L/407 Quick Release Only)	2 N/A
✓ 70405	Lid Step Modification	4
70406	Open Forward End Modification (Eurocopter AS350/AS355 and Bell 206B Quick Release Only)	3
N/A 70407	Open Forward End Modification (Eurocopter EC135 Quick Release Only)	0 N/A
N/A 70411	Open Forward End Modification (Bell 206L/407 Large Quick Release Only)	0 N/A
✓ 70428	Assembly, Hangar Wheel	1
✓ 70438	Parts, Hangar Wheel	1
ENGINEERING DOCUMENTS		
ER704.02	Engineering Report	0

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SHEET 1 OF 1

**Cargo Basket
Modifications**

Rev.

DCL704

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Aero Design Ltd.



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FMS764.91

AIRBUS HELICOPTERS (EUROCOPTER) AS350 & AS355 SERIES

ROTORCRAFT FLIGHT MANUAL SUPPLEMENT for the INSTALLATION of the AERO DESIGN QUICK RELEASE CARGO BASKET

CARGO BASKET MODELS: 76401, 77601, 78401, 94001

TCCA Supplemental Type Certificate No. SH08-16
FAA Supplemental Type Certificate No. SR02680NY
EASA Supplemental Type Certificate No. _____

Sections I, II, III and IV of this document comprise the Transport Canada Approved sections of this Flight Manual Supplement. Compliance with Section I, Limitations, is mandatory. Section V and any subsequent sections if present are Unapproved and are provided for information only.

The information and data contained in this Flight Manual Supplement supersede or supplement that contained in the basic Approved Flight Manual for the Eurocopter AS350 and AS355 Series Helicopters when fitted with the Quick Release Cargo Basket Installation and/or Quick Release Maintenance Step Installation. For limitations, procedures and performance not listed in this Flight Manual Supplement refer to the Approved Flight Manual and other approved Flight Manual Supplements.

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By		
Appr'l No.	SH08-16	
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Revision 4
16 July 2014

Page 1

TRANSPORT CANADA APPROVED

Table of Contents

I	Limitations	3
II	Normal Procedures	3
III	Emergency Procedures	3
IV	Performance	4
V	Weight and Balance	5
VI	Installation / removal instructions	15

Record of Revisions

Revision	Issue Date	Pages Revised	Date Inserted	By
0	25 Feb, 2008	None		
1	29 Jan, 2010	All		
2	16 June 2010	1, 2, 4-14		
3	4 Nov, 2011	All		
4	16 July 2014	1, 2, 6-14		

I LIMITATIONS

1. The maximum load in the Aero Design Ltd. Quick Release Cargo Baskets, model 776 & 940 is 300 lb. (136 kg).
The maximum load in the Aero Design Ltd. Quick Release Cargo Baskets, models 764 & 784 is 250 lb. (113 kg).
2. The Aero Design Quick Release Cargo Basket may be installed on the left side, the right side or both sides.
3. Flight operations limited to VFR conditions with Aero Design Ltd. Quick Release Cargo Basket installed.
4. V_{NE} is unchanged from the basic rotorcraft.
5. AS355NP only: For Category A operations, the basket must be removed. Mounting provisions may be left in place.

II NORMAL PROCEDURES

1. Pre-flight inspections:
 - a) Ensure that all cargo stored in the cargo basket is properly tied down and secured for flight.
 - b) Ensure that the lid of cargo basket is closed and secured.
 - c) Ensure the basket is locked in position on the beams. Pull up on the forward end of the basket to check.

CAUTION

It is possible to exceed the lateral centre of gravity limits of the rotorcraft under some loading conditions. Pilots must ensure that lateral C of G is within limits when loading the basket.

III EMERGENCY PROCEDURES

No change from basic Approved Flight Manual.

IV PERFORMANCE

One Cargo Basket Installed (Left or Right Side):

1. Cruise performance and range will be reduced by approximately 10 percent.
2. AEO climb performance will be reduced by up to 150 fpm.
3. OEI climb performance (AS355 only) will be reduced by up to 100 fpm.

Two Cargo Baskets Installed:

4. Cruise performance and range will be reduced by approximately 20 percent.
5. AEO climb performance will be reduced by up to 300 fpm.
6. OEI climb performance (AS355 only) will be reduced by up to 200 fpm.

V WEIGHT AND BALANCE

This section contains weight and balance information for cargo basket models 76401, 77601, 78401, and 94001. Each model has multiple configurations. Refer to the weight and balance information applicable to model and configuration installed.

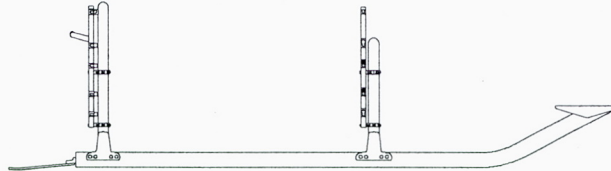
Longitudinal and Lateral moment arms for Cargo are given only for the center of the Cargo Basket. Due to the length of the basket, some loading arrangements may require that actual moment arms be measured, to determine the correct moments about the center of gravity.

CAUTION:

It is possible to exceed lateral CG limits in some configurations.

1. Configuration 786 – Mounting Provisions Only

The following weight and balance is for the mounting provisions installed in accordance with drawing 78602 or 78603 as applicable.



Standard

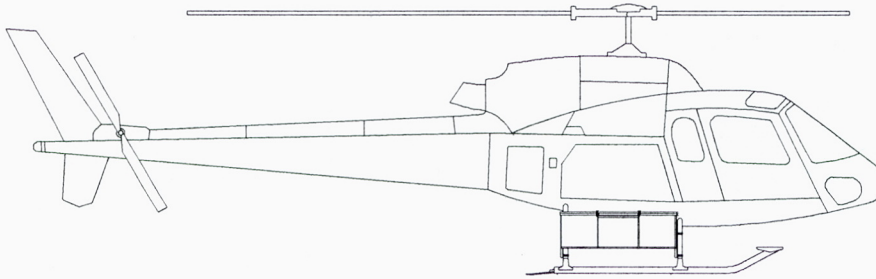
P/N	Description	Weight	Longitudinal		Lateral	
		lb	arm in	moment in-lb	arm in	moment in-lb
78602-01-01	Low Right Hand Provisions	6.4	135.6	866.0	37.2	238.0
78602-02-01	High Right Hand Provisions	6.4	135.6	866.0	36.5	233.8
78603-01-01	Right Hand Cargo Pod Compatible Provisions	6.8	135.4	921.0	38.8	263.6
78602-01-02	Low Left Hand Provisions	6.4	135.6	866.0	-37.2	-238.0
78602-02-02	High Left Hand Provisions	6.4	135.6	866.0	-36.5	-233.8
78603-01-02	Left Hand Cargo Pod Compatible Provisions	6.8	135.4	921.0	-38.8	-263.6

Metric

P/N	Description	Weight	Longitudinal		Lateral	
		kg	arm mm	moment mm-kg	arm mm	moment mm-kg
78602-01-01	Low Right Hand Provisions	2.9	3443.0	9970.6	944.6	2735.4
78602-02-01	High Right Hand Provisions	2.9	3443.0	9970.6	928.1	2687.6
78603-01-01	Right Hand Cargo Pod Compatible Provisions	3.1	3440.1	10584.8	984.6	3029.6
78602-01-02	Low Left Hand Provisions	2.9	3443.0	9970.6	-944.6	-2735.4
78602-02-02	High Left Hand Provisions	2.9	3443.0	9970.6	-928.1	-2687.6
78603-01-02	Left Hand Cargo Pod Compatible Provisions	3.1	3440.1	10584.8	-984.6	-3029.6

2. Configuration 776 (Short Basket)

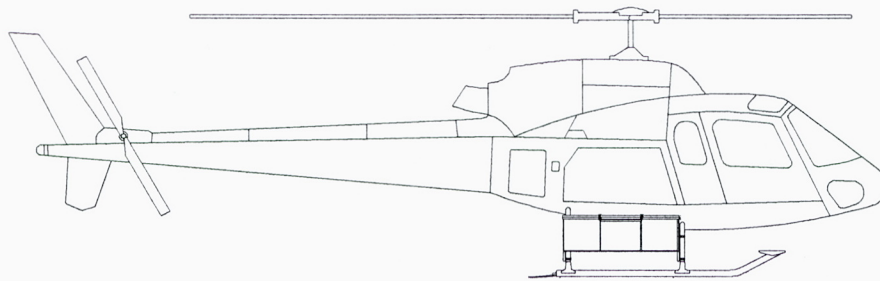
The following weight and balance is for cargo baskets installed in accordance with drawing 77601.



Standard

P/N	Description	Weight	Longitudinal		Lateral	
		lb	arm in	moment in-lb	arm in	moment in-lb
77601-01-01	Low Right Hand Installation	41.4	135.9	5627.5	45.9	1900.5
77601-02-01	High Right Hand Installation	41.4	135.9	5627.5	45.1	1868.3
77601-03-01	Cargo Pod Compatible Right Hand Installation	41.8	135.9	5681.0	47.8	1996.1
	Maximum Cargo (RH)	300.0	135.9	40770.0	*	*
77601-01-02	Low Left Hand Installation	41.4	135.9	5627.5	-45.9	-1900.5
77601-02-02	High Left Hand Installation	41.4	135.9	5627.5	-45.1	-1868.3
77601-03-02	Cargo Pod Compatible Left Hand Installation	41.8	135.9	5681.0	-47.8	-1996.1
	Maximum Cargo (LH)	300.0	135.9	40770.0	*	*

*Lateral arm is same as basket configuration. Lateral moment is calculated with lateral arm.

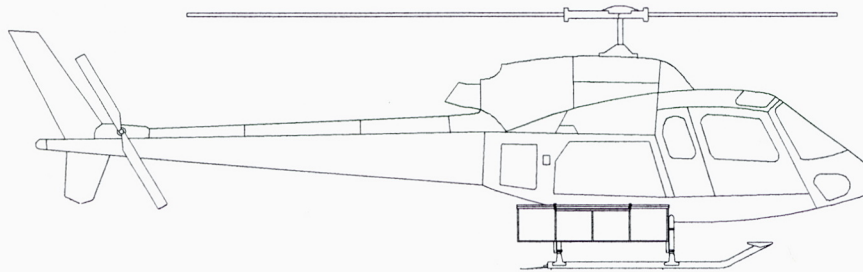


P/N	Description	Metric				
		Weight	Longitudinal		Lateral	
		kg	arm mm	moment mm-kg	arm mm	moment mm-kg
77601-01-01	Low Right Hand Installation	18.7	3452.6	5627.5	1166.0	21842.9
77601-02-01	High Right Hand Installation	18.7	3452.6	5627.5	1146.3	21473.2
77601-03-01	Cargo Pod Compatible Right Hand Installation	18.9	3452.6	5681.0	1212.9	22941.6
	Maximum Cargo (RH)	135.7	3452.6	468768.7	*	*
77601-01-02	Low Left Hand Installation	18.7	3452.6	5627.5	-1166.0	-21842.9
77601-02-02	High Left Hand Installation	18.7	3452.6	5627.5	-1146.3	-21473.2
77601-03-02	Cargo Pod Compatible Left Hand Installation	18.9	3452.6	5681.0	-1212.9	-22941.6
	Maximum Cargo (LH)	135.7	3452.6	468768.7	*	*

*Lateral arm is same as basket configuration. Lateral moment is calculated with lateral arm.

3. Configuration 764 (Medium Basket)

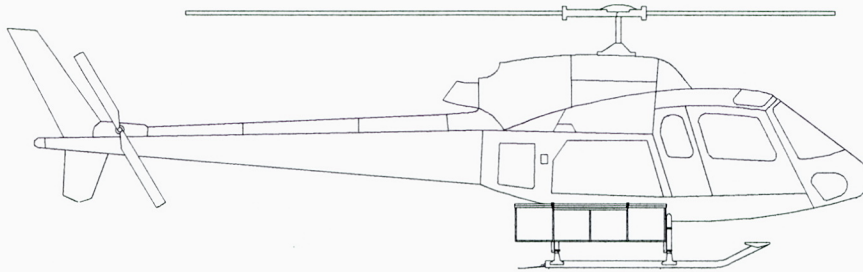
The following weight and balance is for cargo baskets installed in accordance with drawing 76401.



Standard

P/N	Description	Weight	Longitudinal		Lateral	
		lb	arm in	moment in-lb	arm in	moment in-lb
76401-01-01	Low Right Hand Installation	51.4	144.0	7401.5	46.7	2402.5
76401-02-01	High Right Hand Installation	51.4	144.0	7401.5	46.0	2362.3
76401-03-01	Cargo Pod Compatible Right Hand Installation	51.8	143.9	7455.0	48.6	2518.1
	Maximum Cargo (RH)	250.0	144.0	36000.0	*	*
76401-01-02	Low Left Hand Installation	51.4	144.0	7401.5	-46.7	-2402.5
76401-02-02	High Left Hand Installation	51.4	144.0	7401.5	-46.0	-2362.3
76401-03-02	Cargo Pod Compatible Left Hand Installation	51.8	143.9	7455.0	-48.6	-2518.1
	Maximum Cargo (LH)	250.0	144.0	36000.0	*	*

*Lateral arm is same as basket configuration. Lateral moment is calculated with lateral arm.

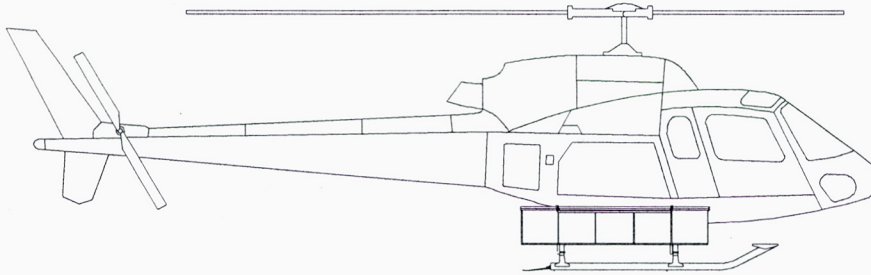


P/N	Description	Metric				
		Weight	Longitudinal		Lateral	
		kg	arm mm	moment mm-kg	arm mm	moment mm-kg
76401-01-01	Low Right Hand Installation	23.3	3657.6	85067.2	1187.2	27612.4
76401-02-01	High Right Hand Installation	23.3	3657.6	85067.2	1167.4	27150.9
76401-03-01	Cargo Pod Compatible Right Hand Installation	23.4	3655.5	85681.4	1234.7	28941.1
	Maximum Cargo (RH)	113.1	3657.6	413674.6	*	*
76401-01-02	Low Left Hand Installation	23.3	3657.6	85067.2	-1187.2	-27612.4
76401-02-02	High Left Hand Installation	23.3	3657.6	85067.2	-1167.4	-27150.9
76401-03-02	Cargo Pod Compatible Left Hand Installation	23.4	3655.5	85681.4	-1234.7	-28941.1
	Maximum Cargo (LH)	113.1	3657.6	413674.6	*	*

*Lateral arm is same as basket configuration. Lateral moment is calculated with lateral arm.

4. Configuration 784 (Long Basket).

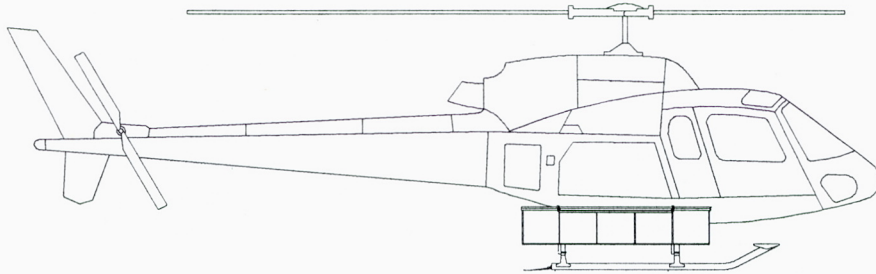
The following weight and balance is for cargo baskets installed in accordance with drawing 78401.



Standard

P/N	Description	Weight	Longitudinal		Lateral	
		lb	arm in	moment in-lb	arm in	moment in-lb
78401-01-01	Low Right Hand Installation	63.9	136.0	8687.5	47.4	3026.8
78401-02-01	High Right Hand Installation	63.9	136.0	8687.5	46.6	2976.6
78401-03-01	Cargo Pod Compatible Right Hand Installation	64.3	135.9	8741.0	49.3	3167.4
	Maximum Cargo (RH)	250.0	136.0	34000.0	*	*
78401-01-02	Low Left Hand Installation	63.9	136.0	7401.5	-47.4	-3026.8
78401-02-02	High Left Hand Installation	63.9	136.0	7401.5	-46.6	-2976.6
78401-03-02	Cargo Pod Compatible Left Hand Installation	64.3	135.9	7455.0	-49.3	-3167.4
	Maximum Cargo (LH)	250.0	136.0	34000.0	*	*

*Lateral arm is same as basket configuration. Lateral moment is calculated with lateral arm.

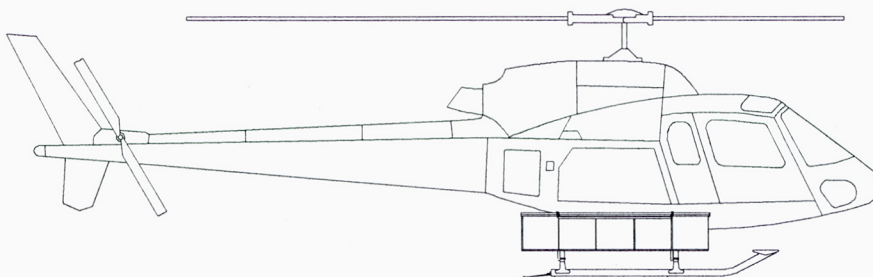


P/N	Description	Metric				
		Weight	Longitudinal		Lateral	
		kg	arm mm	moment mm-kg	arm mm	moment mm-kg
78401-01-01	Low Right Hand Installation	28.9	3453.3	99847.5	1203.1	34787.1
78401-02-01	High Right Hand Installation	28.9	3453.3	99847.5	1183.2	34210.6
78401-03-01	Cargo Pod Compatible Right Hand Installation	29.1	3452.9	100461.7	1251.2	36403.3
	Maximum Cargo (RH)	113.1	3453.3	390568.2	*	*
78401-01-02	Low Left Hand Installation	28.9	3453.3	99847.5	-1203.1	-34787.1
78401-02-02	High Left Hand Installation	28.9	3453.3	99847.5	-1183.2	-34210.6
78401-03-02	Cargo Pod Compatible Left Hand Installation	29.1	3452.9	100461.7	-1251.2	-36403.3
	Maximum Cargo (LH)	113.1	3453.3	390568.2	*	*

*Lateral arm is same as basket configuration. Lateral moment is calculated with lateral arm.

5. Configuration 940 (Extra-Long Basket).

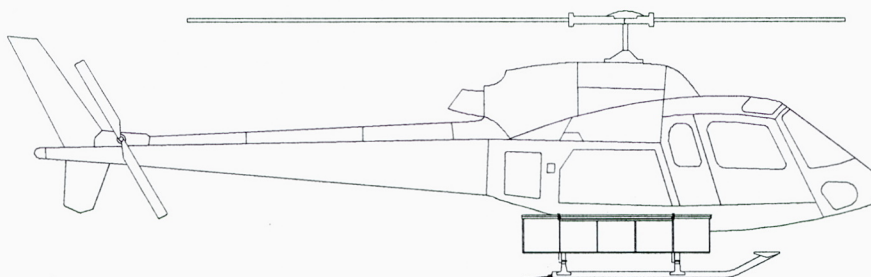
The following weight and balance is for cargo baskets installed in accordance with drawing 94001.



Standard

P/N	Description	Weight	Longitudinal		Lateral	
		lb	arm in	moment in-lb	arm in	moment in-lb
94001-01-01	Low Right Hand Installation	71.2	136.0	9680.3	48.2	3432.6
94001-02-01	High Right Hand Installation	71.2	136.0	9680.3	47.5	3383.1
94001-03-01	Cargo Pod Compatible Right Hand Installation	71.6	135.9	9733.8	50.2	3594.3
	Maximum Cargo (RH)	300.0	136.0	40,800.0	*	*
94001-01-02	Low Left Hand Installation	71.2	136.0	9680.3	-48.2	-3432.6
94001-02-02	High Left Hand Installation	71.2	136.0	9680.3	-47.5	-3383.1
94001-03-02	Cargo Pod Compatible Left Hand Installation	71.6	135.9	9733.8	-50.2	-3594.3
	Maximum Cargo (LH)	300.0	136.0	40,800.0	*	*

*Lateral arm is same as basket configuration. Lateral moment is calculated with lateral arm.



P/N	Description	Metric				
		Weight	Longitudinal		Lateral	
		kg	arm mm	moment mm-kg	arm mm	moment mm-kg
94001-01-01	Low Right Hand Installation	32.2	3453.4	111258	1224.6	39452.1
94001-02-01	High Right Hand Installation	32.2	3453.4	111258	1206.9	38882.9
94001-03-01	Cargo Pod Compatible Right Hand Installation	32.4	3453.0	111872	1275.1	41310.3
	Maximum Cargo (RH)	135.7	3453.4	468,572	*	*
94001-01-02	Low Left Hand Installation	32.2	3453.4	111258	-1224.6	-39452.1
94001-02-02	High Left Hand Installation	32.2	3453.4	111258	-1206.9	-38882.9
94001-03-02	Cargo Pod Compatible Left Hand Installation	32.4	3453.0	111872	-1275.1	-41310.3
	Maximum Cargo (LH)	135.7	3453.4	468,572	*	*

*Lateral arm is same as basket configuration. Lateral moment is calculated with lateral arm.

VI INSTALLATION / REMOVAL INSTRUCTIONS

Cargo Baskets

The beams are installed in accordance with drawing 78602 or 78603 as applicable. The basket is installed in accordance with drawing 76401, 77601, 78401 or 94001, as applicable. Removal of the basket leaving the beams in place is an approved configuration for flight. Logbook entry indicating installation or removal of basket and which weight and balance amendment is in effect is required when basket is installed or removed.

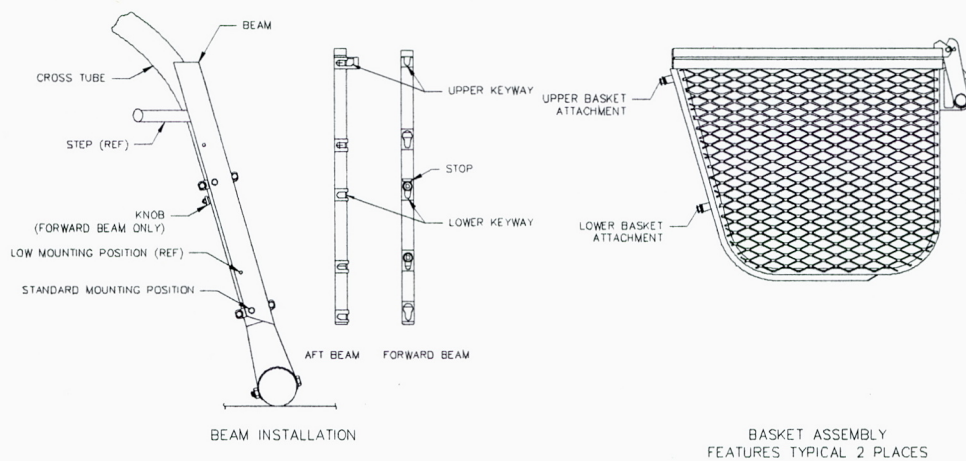


Figure 1 – Basket Attachment Features (Low beam installation shown. Beam attachment features typical for low and high beam installations)

6. Installation - Refer to Figure 1 and Figure 2.

- a) Set basket upper aft basket attachment into upper keyway in aft beam. Forward end of basket may rest on floor.
- b) Lift basket from forward end, slide lower aft attachment into keyway on aft beam.
- c) At forward attachment hoop, lift basket until lower attachment fitting hits stop.
- d) Push fitting into keyway and slide basket down until locked.

2. Removal - Refer to Figure 1 and Figure 2.

- a) Pull knob at bottom end of forward beam and lift basket until attachment fittings are free of keyways.
- b) Rotate basket up until lower aft attachment fitting is free of keyway.
Rest forward end of basket on floor.
- c) Slide basket forward and raise basket until upper aft attachment fitting is free of keyway.

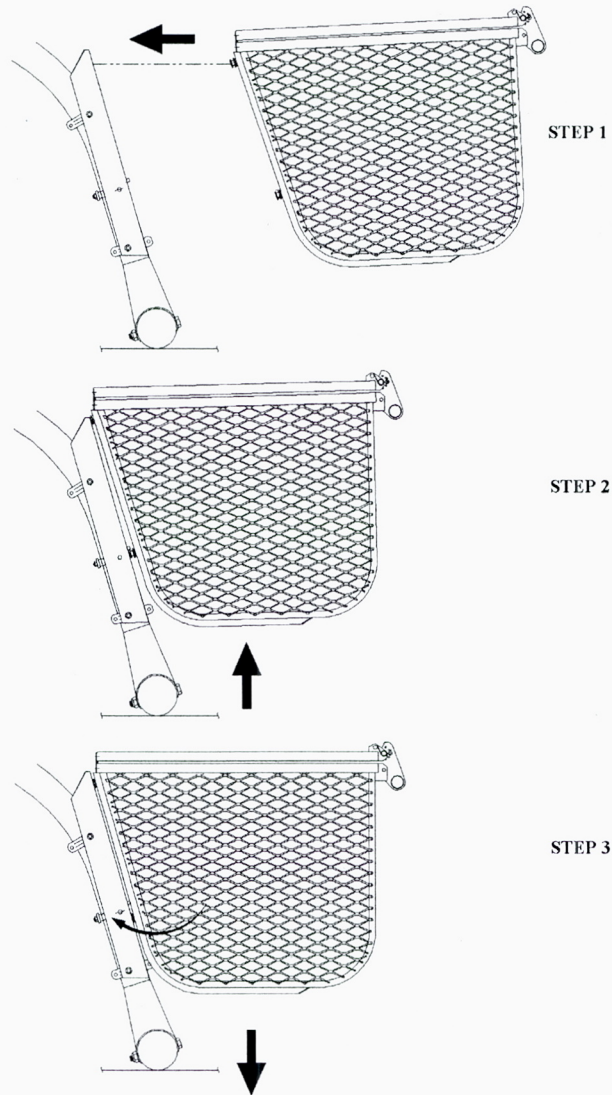


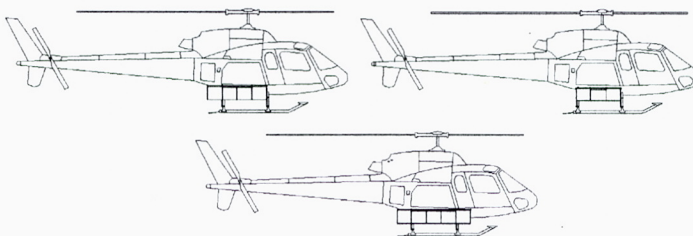
Figure 2 – Basket Attachment Steps
(Installation instructions typical for all configurations).

INSTRUCTIONS FOR CONTINUED AIRWORTHINESS ICA 764.90

AIRBUS HELICOPTERS (EUROCOPTER) AS350 & AS355 SERIES

QUICK RELEASE CARGO BASKET

MODELS: 764, 776, 784, 940



TCCA Supplemental Type Certificate No. SH08-16
FAA Supplemental Type Certificate No. SR02680NY
EASA Supplemental Type Certificate No. _____

Preface

These Instructions for Continued Airworthiness shall be included in the rotorcraft Maintenance Manual when the Quick Release Cargo Basket installed in accordance with AERO Design Ltd. Document Control Lists:

- DCL764-1 (for Installation 76401), Revision 4,
- DCL776-1 (for Installation 77601), Revision 4,
- DCL784-1 (for Installation 78401), Revision 4,
- DCL940-1 (for Installation 94001), Revision 1,
- DCL786-1 (for mounting provision), Revision 3, or later approved revision, is installed.

The information contained herein supplements the information in the basic Maintenance Manual. For Maintenance practices and procedures not contained in these Instructions for Continued Airworthiness refer to the basic Maintenance Manual and its approved supplements.

Revision 6
Date: 15 July 2014

Aero Design Ltd.



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RECORD OF REVISIONS

Revision Number	Issue Date	Date Inserted	By
0	25 February 2008		Original Issue
1	24 June, 2009		
2	22 December 2009		
3	12 April 2010		
4	24 October, 2011		
5	02 August, 2012		
6	15 July 2014		

LIST OF EFFECTIVE PAGES

List of Revisions	Revision 0 (Original Issue)	25 February, 2008
	Revision 1	24 June, 2009
	Revision 2	22 December, 2009
	Revision 3	12 April, 2010
	Revision 4	24 October, 2011
	Revision 5	02 August, 2012
	Revision 6	15 July 2014

List of Effective Pages

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	13	6		32	6
25-50-00	14	6		33	6
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	19	4			

NOTE

Revised text is indicated by a black vertical line. A revised page with only a vertical line next to the page number indicates that text has shifted or that non-technical correction(s) were made on that page. Insert latest revision pages; dispose of superseded pages.

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CHAPTER 0 – INTRODUCTION

0-1 SCOPE

The following Instructions for Continued Airworthiness (ICA) satisfy the requirements of 14 CFR 27.1529, and provide the information necessary to complete the on-going maintenance and inspections required for rotorcraft embodying the Quick Release Cargo Basket as described herein.

0-2 DEFINITIONS AND ABBREVIATIONS

ICA - Instructions for Continued Airworthiness
LH - Left Hand
RH - Right Hand

0-3 DISTRIBUTION

Copies of this ICA and amendments shall be distributed to all known purchasers of the Quick Release Cargo Basket. Requests for a copy may be made in writing to:

Aero Design Ltd.
9888A Malaspina Road
Powell River, BC, Canada
V8A 0G3
Email: info@aerodesign.ca

Any changes will be sent to Transport Canada. All changes will be recorded in the Record of Revisions page at the front of this document.

0-4 COMPATIBILITY

Prior to incorporating this modification, the installer shall establish that the inter-relationship between this change and any other modification(s) incorporated will not adversely affect the airworthiness of the helicopter.

CAUTION : This installation is NOT compatible with fixed or pop-out float installations.

0-5 GENERAL DESCRIPTION

The cargo basket installation is a metal mesh basket installed to the side of the helicopter on beams attached to the landing gear cross tubes. The quick release basket allows for the installation and removal of the basket without tools, leaving the mounting beams in place.

The basket itself is made of a steel welded tubing structure, and lined with expanded steel mesh. The basket has a hinged lid with a self-locking handle.

The beams consist of a steel tube bolted to a clamp on the cross-tube. The quick release mechanism is built into the steel tube.

CHAPTER 4 - AIRWORTHINESS LIMITATIONS

Transport Canada

The Airworthiness Limitations section is approved by the Minister and specifies maintenance required by any applicable airworthiness or operating rule unless an alternative program has been approved by the Minister.

FAA

The Airworthiness Limitations section is FAA approved and specifies inspections and other maintenance required under Secs. 43.16 and 91.403 of the Federal Aviation Regulations unless an alternative program has been FAA approved.

EASA

The Airworthiness Limitations section is approved and variations must also be approved.

No additional airworthiness limitations have been imposed due the installation of the Quick Release Cargo Basket.

CHAPTER 5 – INSPECTION REQUIREMENTS

5-1 INSPECTION SCHEDULE

Continued airworthiness is contingent upon compliance with the following inspection items. These items shall be completed in conjunction with the rotorcraft Maintenance Inspection schedule, or other approved program, or upon removal and replacement of any component of Quick Release Cargo Basket.

Daily Inspection

1. Inspection Area: Basket

- a) Inspect the basket attachment to the beams for condition and security. Ensure quick release mechanism is completely extended, flush with the outboard surface of the beam. If pin does not completely extend, or spring tension is not sufficient to retain basket, replace spring, refer to section 25-9.
- b) Inspect latching of the lid for correct operation. Replace handle brackets on basket if handle is not retained in latched position. Refer to section 25-6.

300 Hour or Annual Inspection

1. Inspection Area: Basket

- a) Visually inspect tube-to-tube welds and mesh-to-tube welds for cracks, corrosion or other damage.
- b) Visually inspect basket mesh for damage.
- c) Visually inspect lid prop for condition and operation. Ensure prop does not extend beyond catch and catch extends to hold lid open. Refer to section 25-8 for lid prop replacement.
- d) Visually inspect handle for condition and operation. Ensure springs on lid brackets hold handle in to guide handle to engage secondary catch on handle brackets. Refer to section 25-7 for handle spring replacement.

2. Inspection Area: Beams

With the basket removed:

- a) Visually inspect beams and clamps attaching basket to the helicopter for cracks, corrosion or other damage.
- b) Visually inspect lugs attaching the basket to the beams for security and damage.
- c) Visually inspect bolts attaching beams to clamps and clamps to cross tubes for condition and security.
- d) Visually inspect peg step on aft beam for crack corrosion or other damage. Inspect grip surface on top of peg for condition.

Special Inspections

1. Following a hard landing inspect the Quick Release Cargo Basket installation in accordance with the 300 hour or annual inspection listed above.
2. Any joints using a helical thread insert (Helicoil) shall be inspected on assembly in accordance with the procedure for checking self locking nuts and screws specified in the Eurocopter Standard Practices Manual, Section 20.02.05.601

5-2 DAMAGE LIMITS / REPAIR INSTRUCTIONS

If damage is found in the inspections above, repair in accordance with the instructions below.

1. Basket and Lid Tubing*Damage Limits:*

- a) Deformation of any tubing between welded joints not exceeding 0.25 inches in any direction must be repaired in accordance with the instructions below.
- b) Corrosion not exceeding 0.015 inches deep to be buffed out to a smooth contour.
- c) Corrosion exceeding 0.015 inches deep to be repaired in accordance with the instructions below.

Repair Instructions:

- a) Repair Basket in accordance with AC43.13-1B, Chapter 4, Section 5, Welding, as required.
- b) Basket is fabricated from the following materials:

Attachment Hoops:	1" square steel tube and/or 1/2" square steel tube
Lid and Rim:	3/4" square steel tube
Frames:	1/2" square steel tube
- c) Touch up with polyurethane paint as required following repairs.

2. Basket and Lid Mesh*Damage Limits:*

- a) The basket mesh may be deformed or stretched without limit, so long as the welds attaching the mesh to the basket or lid are not compromised. If welds are compromised, repair in accordance with instructions below.
- b) Tears in the mesh not exceeding 4 cells in any direction may be repaired by patching. Maximum one repair patch per bay. See instructions below.

Repair Instructions:

- a) Repair mesh to tube welds in accordance with AC43.13-1B, Chapter 4, Section 5, Welding, as required.

Mesh:	3/4" 16 ga. (0.040") expanded steel mesh
-------	--

b) Patch repair:

- a. Cut two aluminum sheets, minimum 0.040 inches thick, extending to at least 1 complete cell outside of torn area. Drill #9 holes in the corners of the sheet, located to clear the mesh when installed.
- b. Attach patches, one inside and one outside, to the mesh with AN3 Bolts, AN970-3 Washers, and MS21044N3 Nuts.

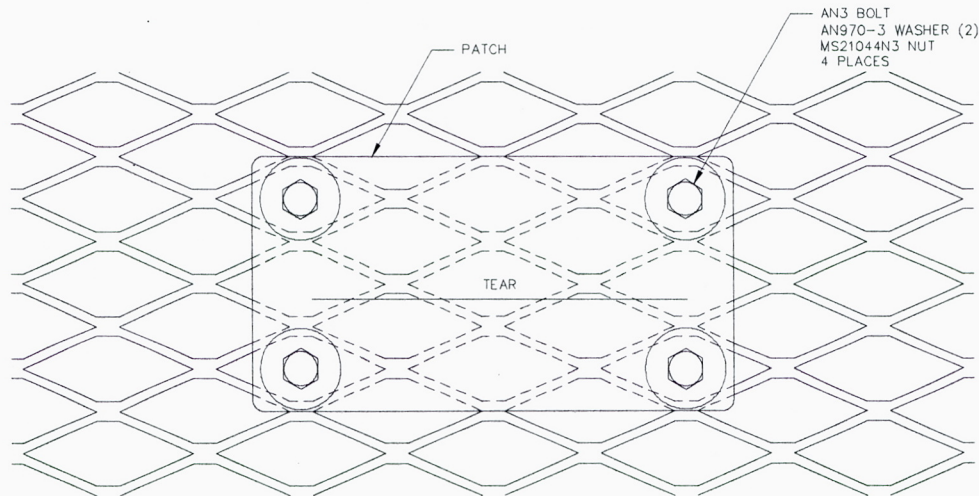


Figure 5.1 – Patch Repair

c) Touch up with polyurethane paint as required following repairs.

3. Mounting Beams

DO NOT REPAIR DAMAGE TO BEAMS IF BEYOND THE LIMITS BELOW.

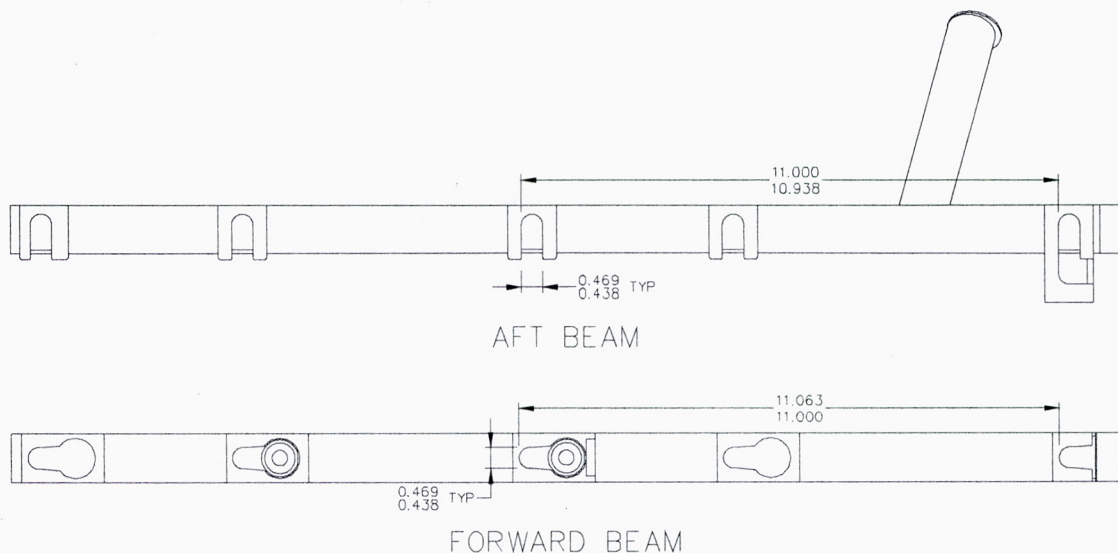


Figure 5.2 – Critical Keyway Dimensions

- a) Nicks and/or gouges on any face up to 0.015" deep and 0.125" wide may be dressed out to a smooth contour.
- b) Critical keyway dimensions are shown in Figure 5.2. Attempt to insert 15/32 drill shank into bottom end of keyway. If drill can be inserted, slot is worn beyond limit.
- c) Touch up with polyurethane paint as required following repairs.

4. Aluminum Clamps

DO NOT REPAIR DAMAGE TO CLAMPS IF BEYOND THE LIMITS BELOW.

- a) Nicks and/or gouges on the top or bottom surface up to 0.060" deep and 0.125" wide may be dressed out to a smooth contour. Refer to Figure 5.2.
- b) Nicks and/or gouges on the outer edge up to 0.030" deep and 0.125" wide may be dressed out to a smooth contour. Refer to Figure 5.2.
- c) Any cracking on any surface is unacceptable.

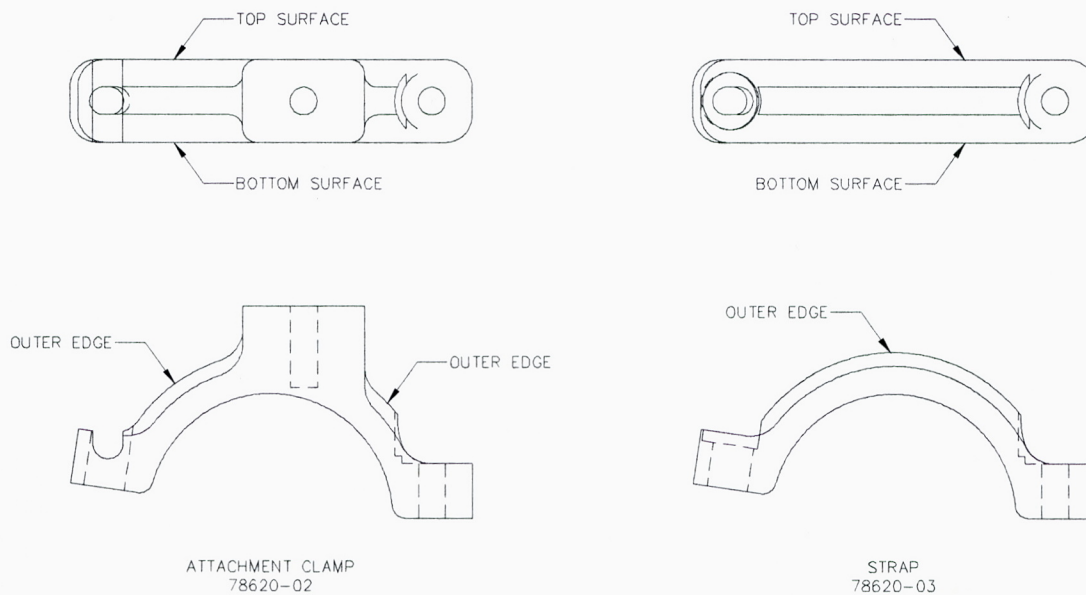


Figure 5.3 – Aluminum Clamps
(78620-01 shown, 78621-XX similar)

4. Helical Thread Inserts

Helical thread inserts (Helicoils) found to be damaged shall be repaired in accordance with the Eurocopter Standard Practices Manual, Section 20.03.04.404.

Part numbers:

1/4-28 insert: 3591-4CN375

5-3 PROTECTIVE TREATMENT INFORMATION

1. Beams

The steel beams are supplied powder coated. If the powder coat is damaged, touch up with polyurethane paint.

Alternate: The steel beams are supplied painted. If the paint is damaged, touch up with polyurethane paint.

Aft beam only: the peg step has a 1" wide strip of 3M SafetyWalk grip tape applied to the top surface. If the grip tape is damaged it may be replaced with equivalent grip tape or may be painted with Randolph X1567 WingWalk grip paint or equivalent grip paint.

2. Clamps

The aluminum clamps are supplied painted. If the paint is damaged, touch up with polyurethane paint.

Alternate: The aluminum clamps are supplied anodized. If the anodizing is damaged, prime with epoxy urethane primer and paint with polyurethane paint.

3. Cargo Basket

The cargo basket is supplied powder coated. If the powder coat is damaged, touch up with polyurethane paint.

CHAPTER 11 – MARKINGS AND PLACARDS

The following markings and placards are used with the Quick Release Cargo Basket Installation, located on basket lid:

a) Short Basket, Model 776

Basket S/N 77601-01 thru 77601-14



Basket S/N 77601-15 and Sub.



b) Medium Basket, Model 764

RH Basket S/N 76401-01 thru 77601-18



RH Basket S/N 76401-19 and Sub.



LH Basket S/N 76402-01 thru 76402-42

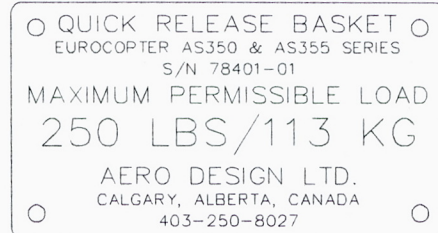


LH Basket S/N 76402-43 and Sub.



c) Long Basket, Model 784

Basket S/N 78401-01 thru 78401-54



Basket S/N 78401-55 and Sub.



d) Extra Large Basket, Model 940
Basket S/N 94001-01 thru 94001-37



Basket S/N 94001-38 and Sub.



CHAPTER 25 – EQUIPMENT AND FURNISHINGS

SECTION 50 – CARGO COMPARTMENTS

The Quick Release Cargo Basket Installation may be applied to the right and/or left side of the helicopter.

25-1 BEAMS INSTALLATION

Refer to section 25-10 for part numbers.

The HIGH beam mounting position (configuration 78602-02-XX) is standard and uses the LOWER set of holes in the beams. The LOW beam mounting position (configuration 78602-01-XX) is required if the helicopter is fitted with cargo compartment extenders ("squirrel cheeks"), and uses the UPPER set of holes in the beams.

Installation pictures show LEFT SIDE, HIGH mounted installation.

1. Position two (2) Clamp Assemblies 78620-01 around each cross tube. Fasten clamps using one AN4-14A Bolt, two (2) NAS1149F0463P Washers and MS21044N4 Nut through one side of the Clamp Assembly and one FT4F-175H T-Bolt and 3D0006-4 Self-Aligning Nut through the other side of the Clamp Assembly. Fully torque AN4-14A bolt, do not tighten T-Bolt.

Note orientation (refer to figure 25.1 thru 25.3):

Forward – Top:	Lug Outboard
Forward – Bottom:	Lug Inboard
Aft – Top:	Lug Inboard
Aft – Bottom:	Lug Inboard

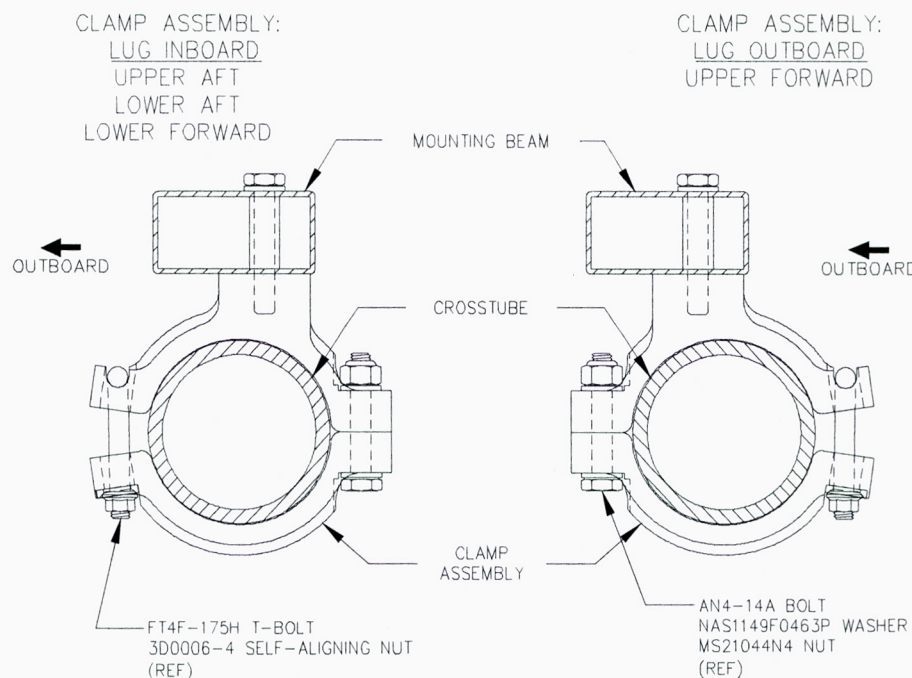


Figure 25.1 – Beam Installation – Clamp Detail

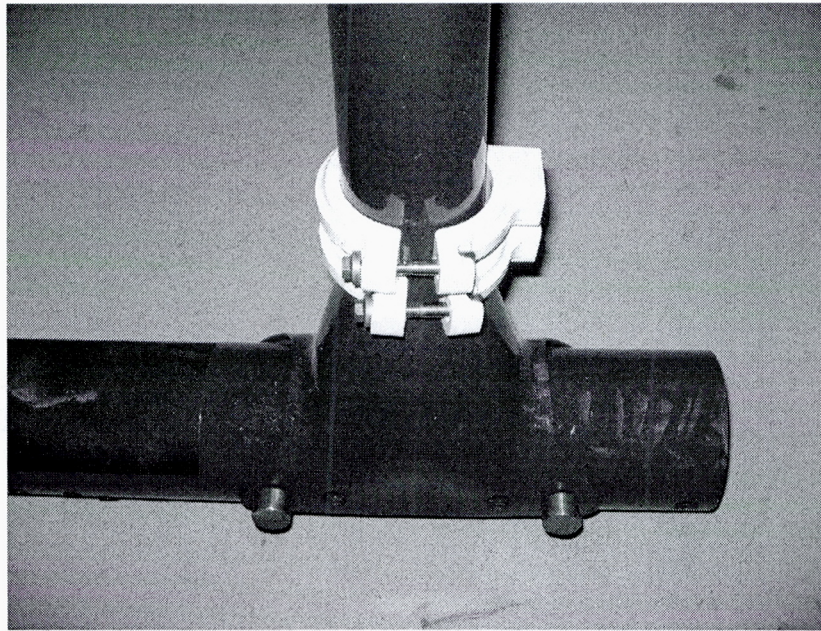


Figure 25.2 – Aft Cross Tube Clamps

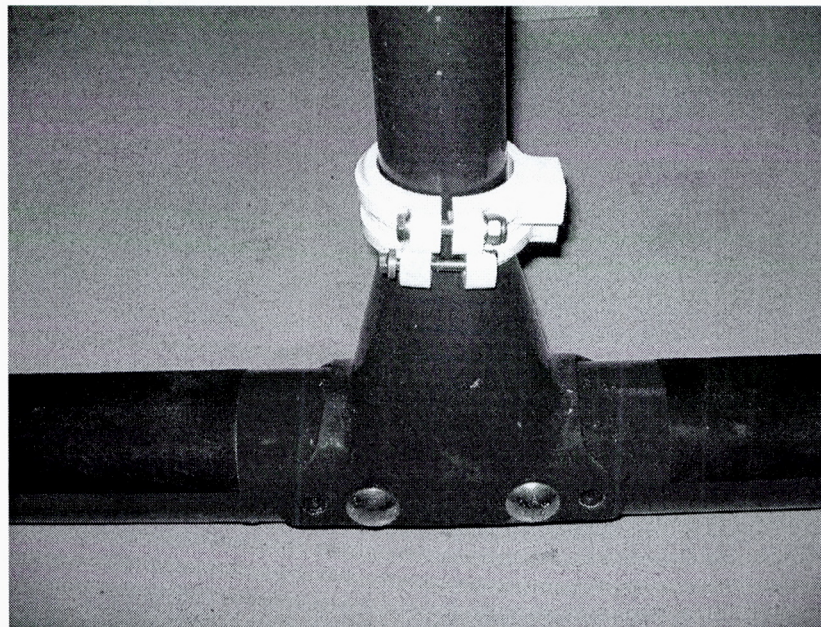


Figure 25.3 – Forward Cross Tube Clamps

2. Attach Forward Beam Assembly to Clamp Assemblies on forward cross tube with two (2) AN4-14A Bolts and two (2) NAS1149F0463P Washers. Locate clamps on LOWER set of holes in beam for HIGH installation, or UPPER set of holes for LOW installation. Do not fully tighten bolts. Position beam so that the bottom clamp is slightly above the weld at the bottom of the cross tube. Tighten clamp bolts enough to prevent slippage on the tube while adjusting installation in following steps.

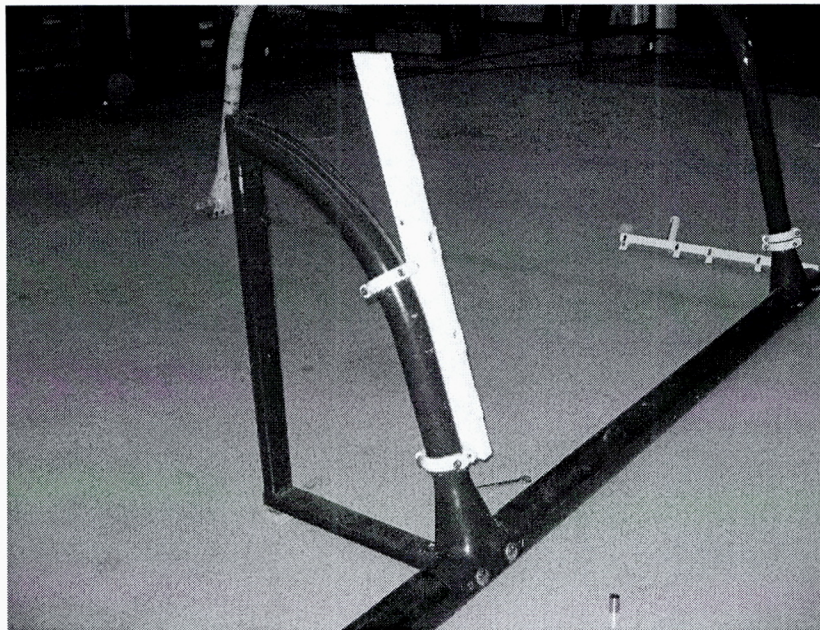


Figure 25.4 – Forward Beam Installation
(Looking aft)

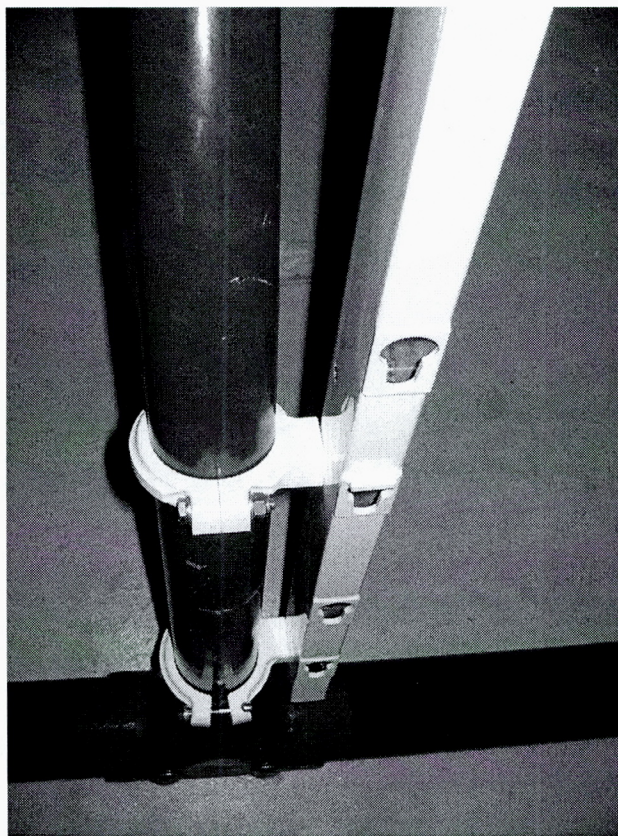


Figure 25.4 – Forward Beam Installation
(Looking down)



Figure 25.5 – Forward Beam Installation, Bottom Clamp

3. Attach Aft Beam Assembly to Clamp Assemblies on aft cross tube with two (2) AN4-14A Bolts and two (2) NAS1149F0463P Washers. Locate clamps on LOWER set of holes in beam for HIGH installation, or UPPER set of holes for LOW installation. Do not fully tighten bolts. Position beam so that the bottom clamp is slightly above the weld at the bottom of the cross tube. Tighten clamp bolts enough to prevent slippage on the tube while adjusting installation in following steps.

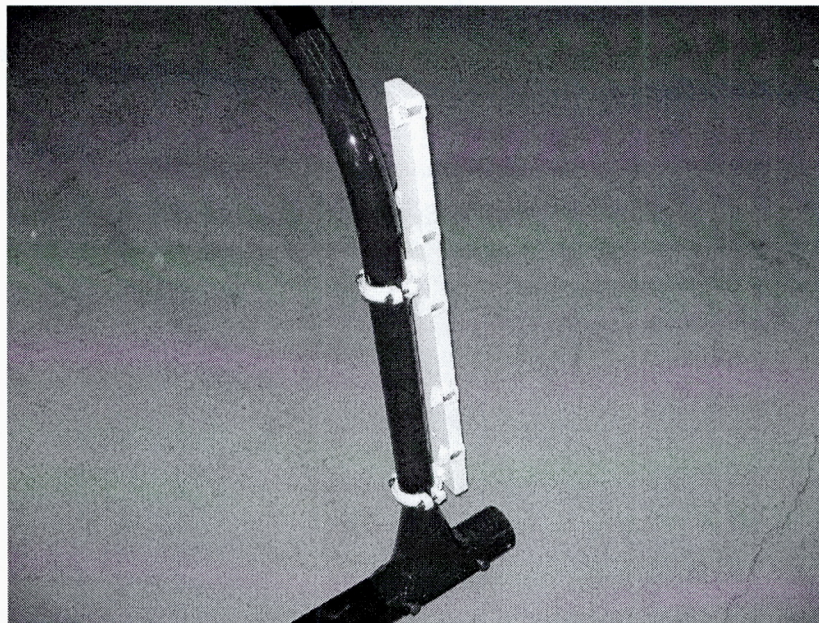


Figure 25.6 – Aft Beam Installation
(Looking aft)

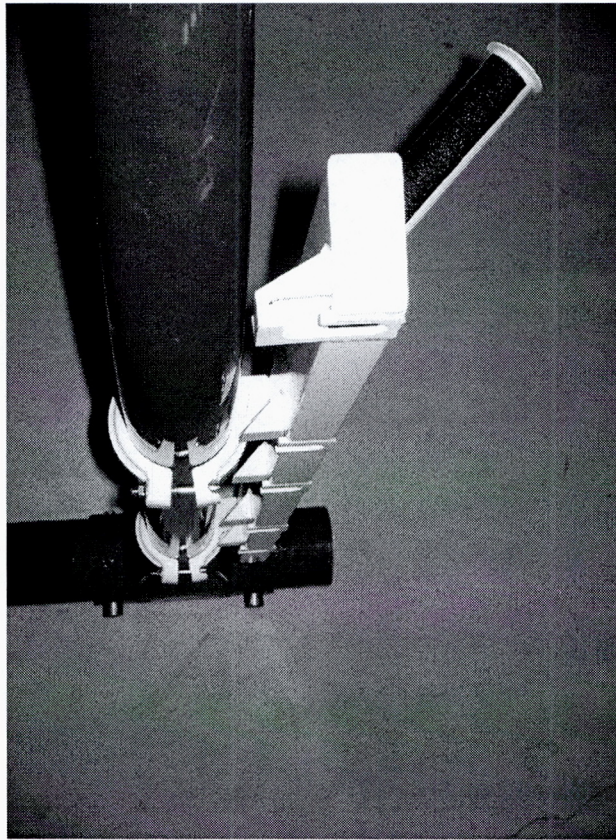


Figure 25.7 – Aft Beam Installation
(Looking down)

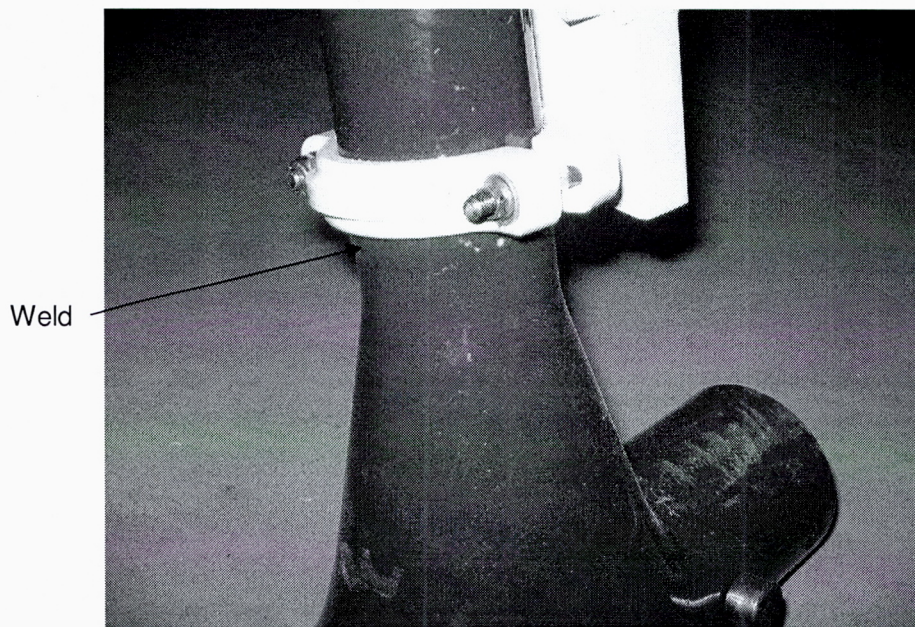


Figure 25.8 – Aft Beam Installation, Bottom Clamp

4. Using a large square or straight edge as a reference, align the forward and aft beams with the cross tubes. Loosen bolts if required to adjust the beam, re-tighten clamp bolts after adjusting.

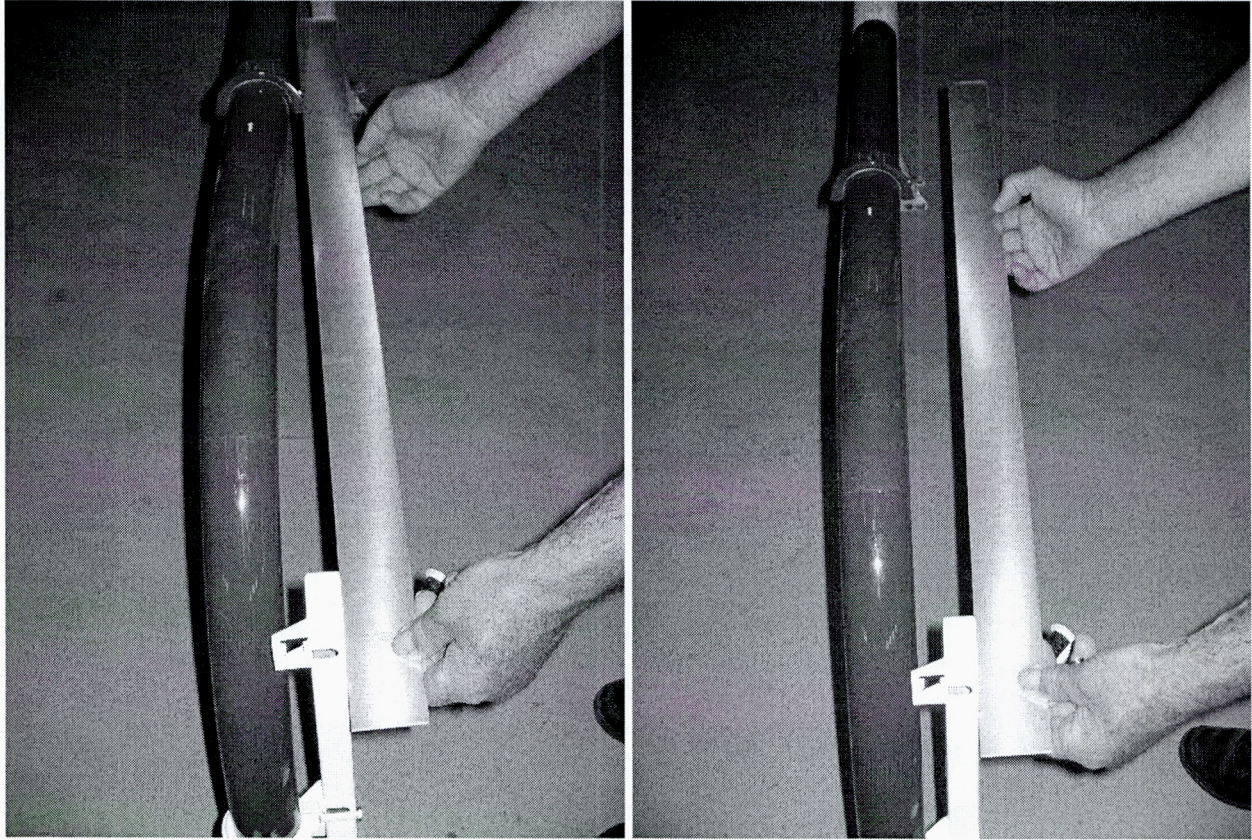


Figure 25.9 – Beam Alignment

(Note left picture is not parallel to cross tube, right picture is correct)

5. In order to easily snap the basket in and out of the beams, the beams must be correctly aligned. The following steps detail the alignment procedures. Ensure beams are approximately parallel and aligned front to back before starting. For all procedures listed below, set the basket on the beams as described, remove the basket to apply the correction and re-check with the basket after.

- a. *Beams too close together or too far apart (basket cannot be installed in top slots):*

Set upper aft attachment fitting on basket into top keyway in aft beam and slide basket aft. Attempt to insert upper forward fitting into top keyway of forward beam.

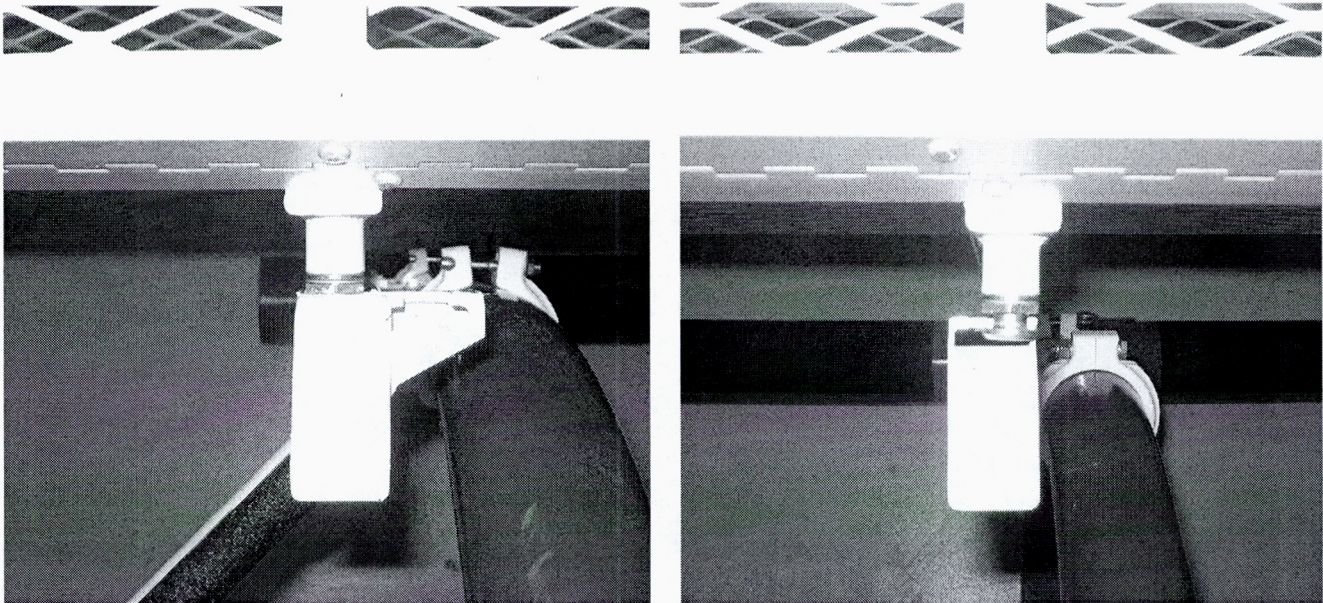


Figure 25.10 – Beam Adjustment, Step 1 – Beams too close together
(Looking down, left picture aft beam, right picture forward beam)

The basket attachment fittings should be centred on the beams to allow for some fore/aft movement on the aft beam if required due to landing conditions or changes in weight and balance. Note in Figure 25.10 the aft fitting is bottomed in the aft slot and the forward fitting cannot be inserted. In this case the AFT beam would require shimming.

Using 1/4" commercial stainless steel fender washers, shim the forward or aft beam as required by inserting washer(s) between the beam and both clamps. Only use enough shims to allow basket to enter the TOP slot.

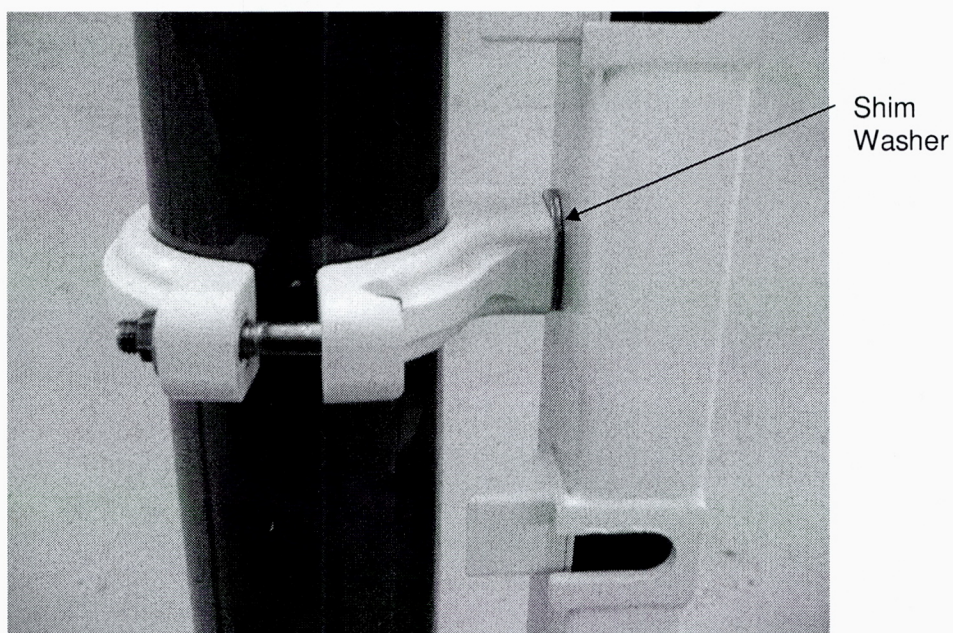
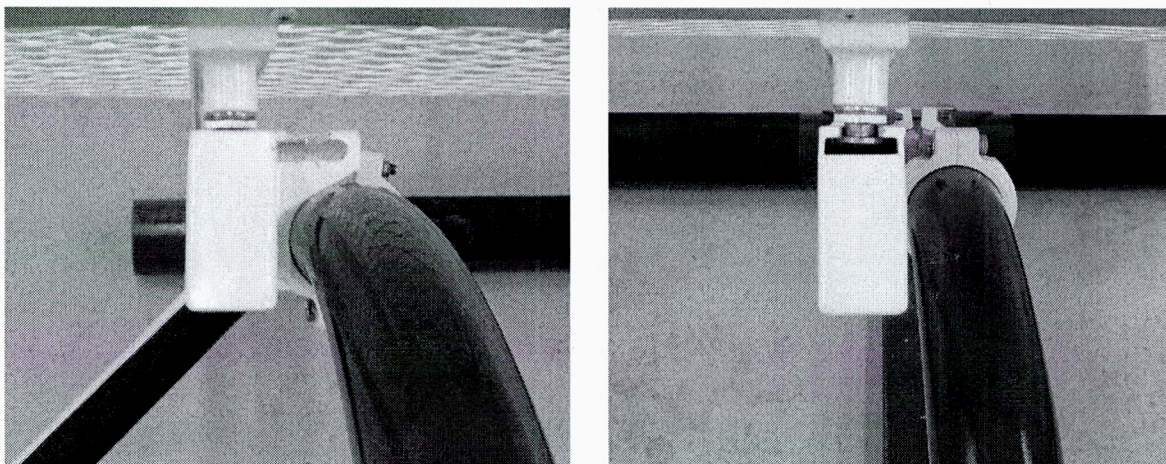


Figure 25.11 – Beam Adjustment, Step 1 – Shim Rear Beam



- b. *Basket in top slots, resting with bottom fittings against beams (not in keyways), forward fitting does not line up with keyway (fore/aft):*

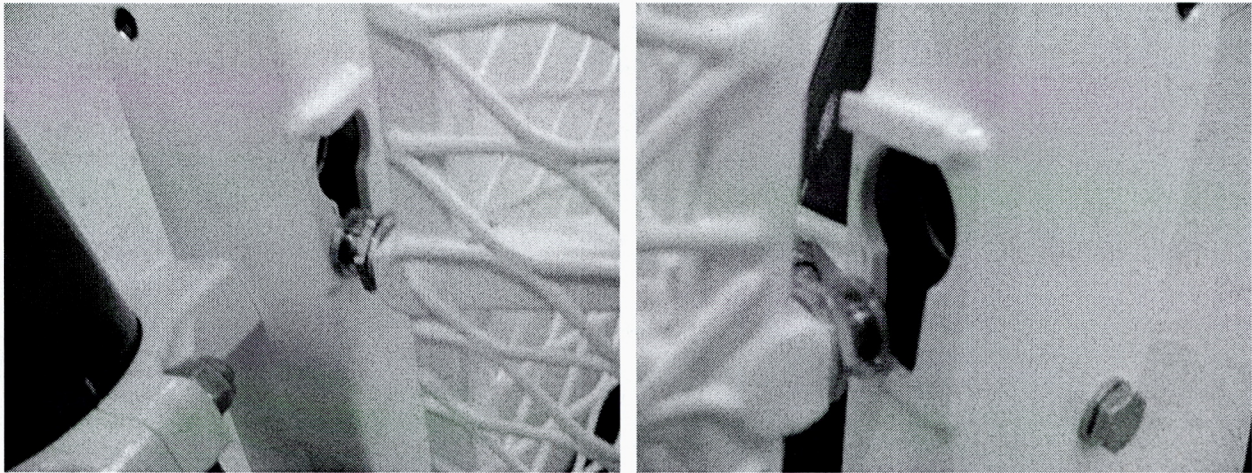


Figure 25.13 – Basket Adjustment Step 2 – Forward Fitting Out of Alignment
(Left picture is looking aft, right picture is looking forward)

The beams are not at the same height. Raise or lower the aft beam along the aft cross tube until the bottom fittings on the basket are aligned with both keyways.

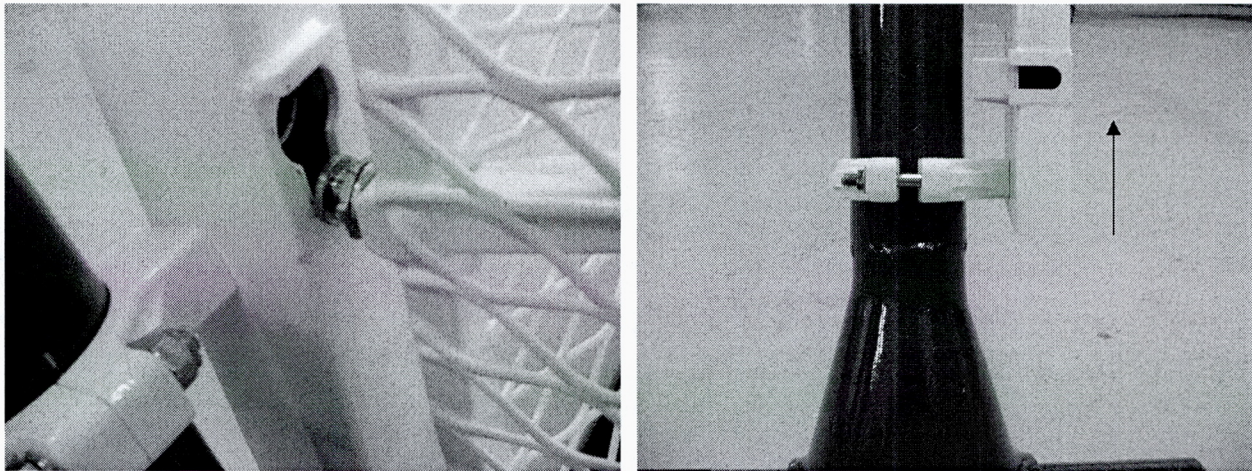


Figure 25.14 – Basket Adjustment Step 2 – Forward Fitting Aligned
(Aft beam moved up to align forward fitting with keyway)

- c. *Basket in top slots, resting with bottom fittings against beams, bottom aft fitting bottoms out in keyway.*

The landing gear cross tubes are not parallel. Using 1/4" commercial stainless steel fender washers, shim the top or bottom (as required) to align the bottom fitting on the basket with the keyway.

- d. *Basket in top slots, resting with bottom fitting against beams, bottom fitting is away from the surface of the forward beam (outboard):*

The beams are not parallel. Adjust the forward beam up or down the forward cross tube until both bottom fittings sit flat on the beams.

- e. *Basket in all keyways, does not slide smoothly in and out of forward beam:*

Opposite attachment fittings on the basket (top front and bottom aft or bottom front and top aft) may be shimmed out using a maximum of two (2) additional NAS1149F0632P washers to allow the basket to slide into the keyways without twisting.

6. Bolts attaching beams to clamps (AN4-14A) that have been shimmed require longer bolts. There must be at least 0.38" of thread protruding with shims in place.

1 washer – AN4-14A bolt (no change)

2-3 washers – AN4-15A bolt

4-5 washers – AN4-16A bolt

Shimming in excess of 5 washers may indicate incorrect alignment in step 5. Confirm corrective actions taken, and if shims are still required, contact Aero Design Ltd. for further instructions.

7. Torque all 1/4" fasteners (12 places) to 30-40 inch-pounds (3.4-4.5 N-m). Note: A gap will remain on the side of the clamp assembly with the T-bolt as shown in Figure 25.1.

25-2 CARGO POD COMPATIBLE BEAMS INSTALLATION

A helicopter that is fitted with Side Cargo Compartment Extenders ("Squirrel Cheeks" or Cargo Pods) requires different Clamp Assemblies as listed in section 25-10, (configuration 78603-01-XX). Installation procedure is the same as listed in Section 25-1, with the beams mounted in the LOW position.

Ensure Clamp Assemblies are correct for the side of the helicopter the basket is to be installed on. The beam mounting lug is on the BOTTOM of the clamp and points AFT. The forward top clamp is different than the other three clamps.

25-3 BEAMS REMOVAL

Refer to Figure 25.1.

1. Remove Cargo Basket. Refer to section 25-5.
2. Remove fasteners securing clamp assemblies to the forward cross-tube. Remove Beam Assembly with clamps.
3. Remove fasteners securing clamp assemblies to the aft cross-tube. Remove Beam Assembly with clamps.

25-4 BASKET INSTALLATION

Refer to Figure 25.15 and Figure 25.16. Refer to section 25-6 for part numbers.

1. Set basket upper aft attachment into upper keyway in aft beam. Forward end of basket may rest on floor.
2. Lift basket from forward end, slide lower aft attachment into keyway on aft beam.
3. Raise forward end of basket to forward beam, sliding basket aft, and lift until lower attachment fitting hits stop over keyway.
4. Push fitting into lower keyway, ensure top fitting enters top keyway, and slide basket down until locked. Pull up on forward end basket to ensure basket is locked in place on aft beam.

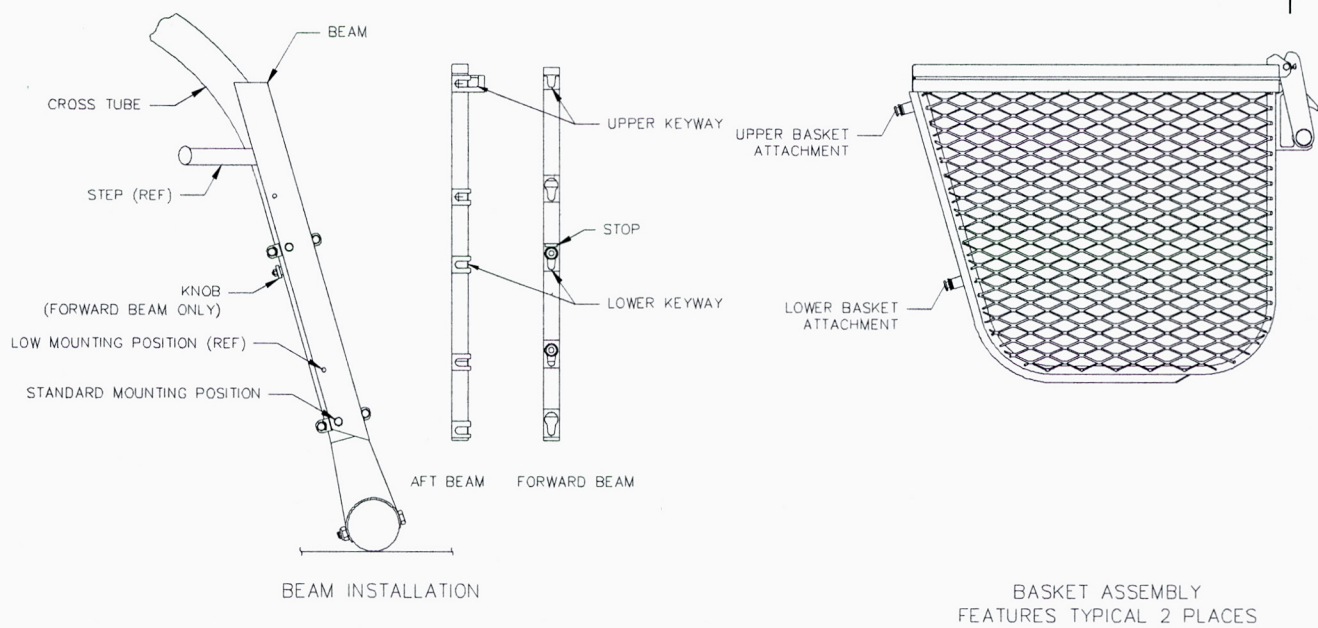


Figure 25.15 – Basket Attachment Features

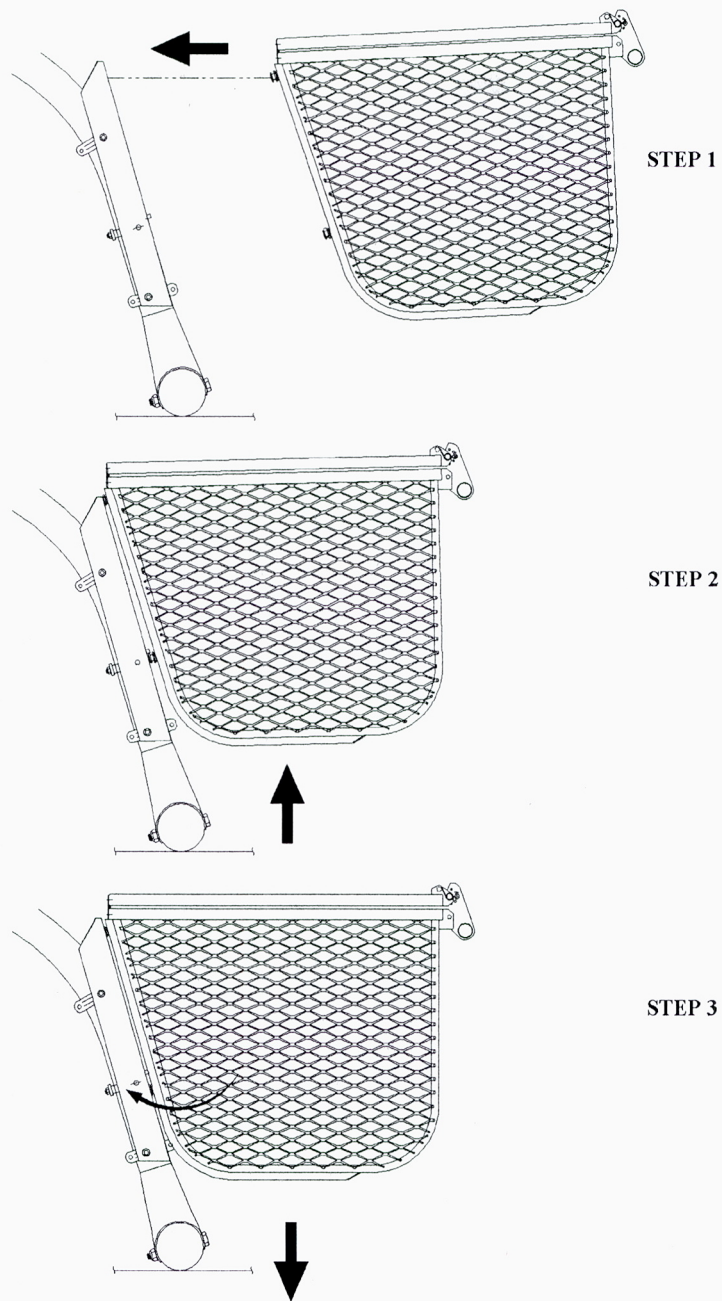


Figure 25.16 – Basket Attachment Steps

25-5 BASKET REMOVAL

Refer to Figure 25.15 and Figure 25.16.

1. Pull knob at bottom end of forward beam and lift basket until attachment fittings are free of keyways on forward beam.
2. Rotate basket up until lower aft attachment fitting is free of keyway. Rest forward end of basket on floor.
3. Slide basket forward and raise basket until upper aft attachment fitting is free of keyway.

25-6 HANDLE BRACKET REPLACEMENT

Refer to Figure 25.4.

- a. Remove two (2) AN3-11A Bolts, NAS1149F0363P Washers and MS21044N3 Nuts from each Handle Bracket (84267-01). Remove handle brackets from basket hoops.
- b. Slide two (2) replacement Handle Brackets (84267-01) onto basket hoops. Align Handle Bracket to bushings in hoop. Insert two (2) AN3-11A Bolts with NAS1149F0363P Washers through Handle Bracket and bushing. Install NAS1149F0363P Washer and MS21044N3 Nut on each bolt. Torque nuts to 20-25 in-lbs (2.3-2.8 N-m).

25-7 HANDLE SPRING REPLACEMENT

Refer to Figure 25.4.

- a. Remove two (2) AN3-12A Bolts, NAS1149F0363P Washers (2) and MS21044N3 Nuts attaching handle to lid. Remove handle from basket. Remove springs from handle.
- b. Slide replacement 36278-01R and 36278-01L Springs onto handle. Spring arm will catch on hook when on the correct side. Insert two 36275-01 bushings into handle attachments. Locate handle on basket, and insert two (2) AN3-12A Bolts with NAS1149F0363P Washers through bracket on lid and bushing in handle. Install NAS1149F0363P Washer and MS21044N3 Nut on each bolt. Torque nuts to 20-25 in-lbs (2.3-2.8 N-m). Lift spring arm over catch on handle and bar on lid bracket.

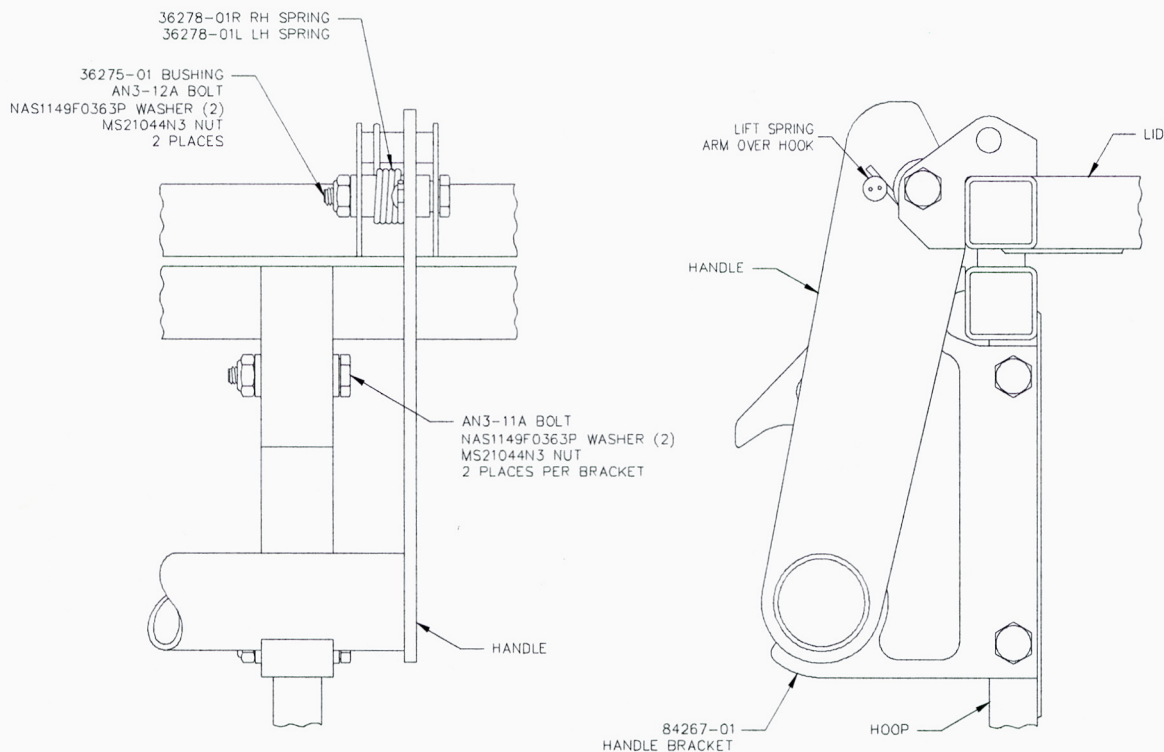


Figure 25.4 – Handle Bracket Parts

25-8 LID PROP REPLACEMENT

- Remove AN3-15A and AN3-17A Bolts, NAS1149F0363P Washers (3), AN970-3 Washers (2) and MS21044N3 Nuts attaching lid prop to basket assembly. Remove lid prop from basket
- Locate replacement 36280-01 Lid Prop on bushings at forward end of basket and lid.
- Insert AN970-3 Washer into lid end of prop, and slide AN3-15A Bolt with NAS1149F0363P Washer through bushing in lid. Install NAS1149F0363P Washer and MS21044N3 Nut on bolt.
- Slide AN3-17A Bolt with AN970-3 Washer through bushing in basket. Install NAS1149F0363P Washer and MS21044N3 Nut on bolt.
- Ensure lid prop is seated on bushings and torque nuts to 20-25 in-lbs (2.3-2.8 N-m).

25-9 QUICK RELEASE PIN SPRING REPLACEMENT

- Remove basket from mounting beams, refer to section 25-4.
- At lower attachment keyway on aft beam, remove MS21044C3 Nut from #10-32 stainless steel countersunk screw and remove 69830-13 Knob, 69830-12 Stop, and 69830-23 Spring. Discard defective Spring.

3. Place 69830-12 Stop on #10-32 stainless steel countersunk screw. Slide replacement 69830-23 Spring onto Stop. Insert screw/Stop/Spring into guide in lower keyway of aft beam. Install 69830-13 Knob and MS21044C3 Nut on inboard side of beam. Torque nut to 20-25 in-lbs (2.3-2.8 N-m).

25-10 BILL OF MATERIALS

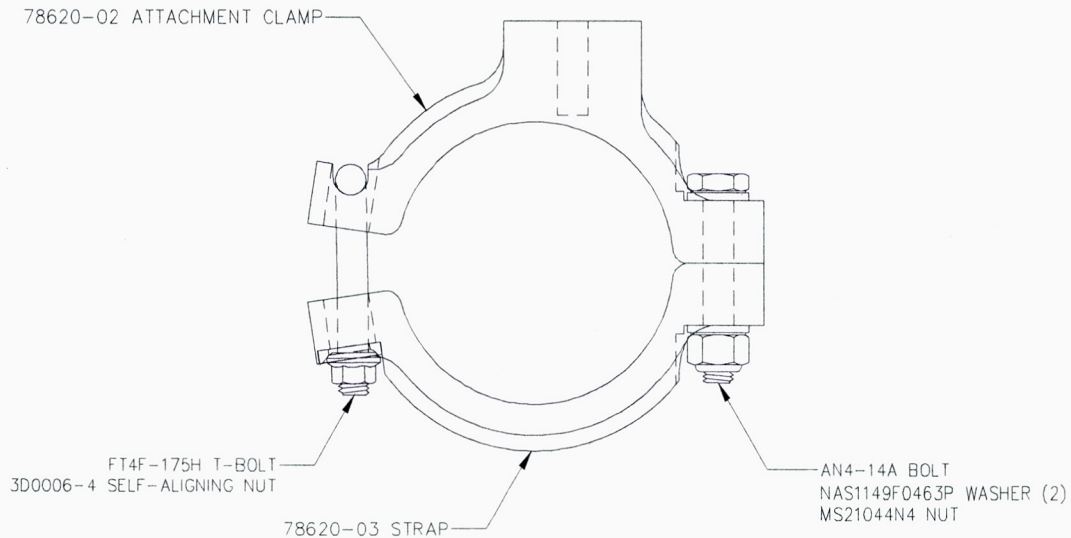


Figure 25.17 – Clamp Assembly

CLAMP ASSEMBLY (Standard)

Qty.	Part Number	Description
	78620-01	Clamp Assembly
. 1	78620-02	Attachment Clamp (with mounting pad)
. 1	78620-03	Strap (no mounting pad)
. 1	AN4-14A	Bolt
. 2	NAS1149F0463P	Washer
. 1	MS21044N4	Nut
. 1	FT4F-175H	T-Bolt
. 1	3D0006-4	Self Aligning Nut

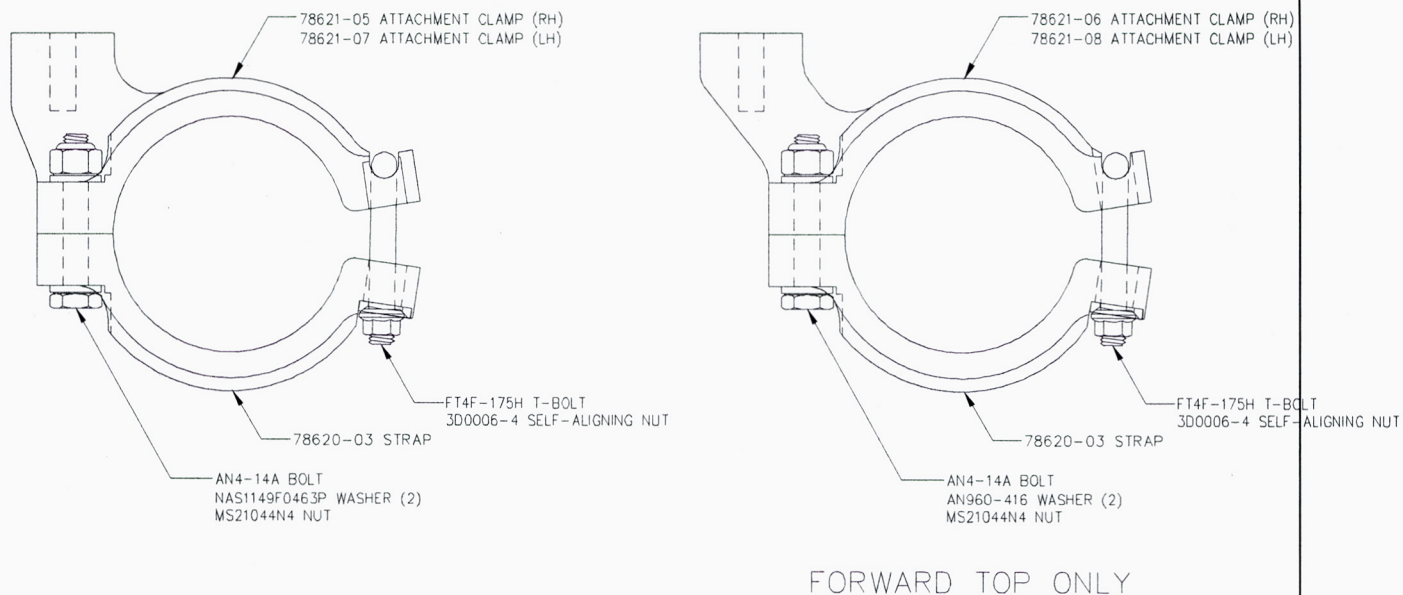


Figure 25.18 – Eurocopter Pod Compatible Clamps
(Right Hand shown, Left Hand opposite)

CLAMP ASSEMBLY (Eurocopter Pod Compatible)

Qty.	Part Number	Description
	78621-01	Right Hand Clamp Assembly
. 1	78621-05	Attachment Clamp
	78621-02	Right Hand, Forward Top, Clamp Assembly
. 1	78621-06	Attachment Clamp
	78621-03	Left Hand Clamp Assembly
. 1	78621-07	Attachment Clamp
	78621-04	Left Hand, Forward Top Clamp Assembly
. 1	78621-08	Attachment Clamp
. 1	78620-03	Strap (no mounting pad)
. 1	AN4-14A	Bolt
. 2	NAS1149F0463P	Washer
. 1	MS21044N4	Nut
. 1	FT4F-175H	T-Bolt
. 1	3D0006-4	Self Aligning Nut

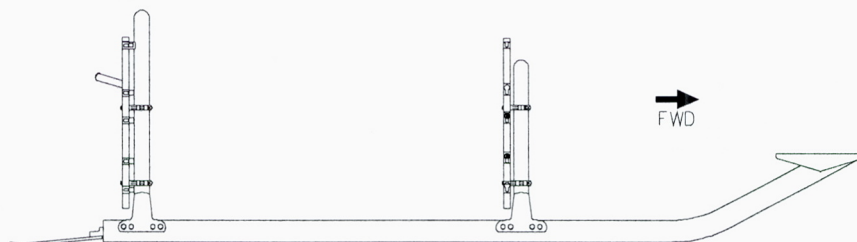
PROVISIONS INSTALLATION*LOW CONFIGURATION*

Figure 25.19 – Low Mounted Provisions Installation

Qty.	Part Number	Description
1	78602-01-01	Provisions Installation- RH Low
1	78602-01-02	Provisions Installation- LH Low
. 4	78620-01	Clamp Assembly
. 1	78633-01-01	Aft Beam Assembly (RH)
. 1	78633-01-02	Aft Beam Assembly (LH)
. 1	78634-01-00	Forward Beam Assembly
. 4	AN4-14A	Bolt
. 4	NAS1149F0463P	Washer
. A/R	--	Commercial Stainless Steel Fender Washer

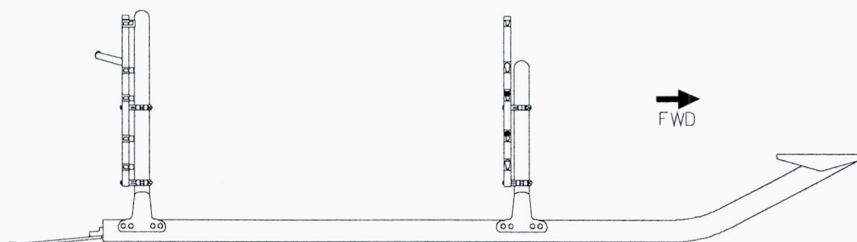
HIGH CONFIGURATION

Figure 25.20 – High Mounted Provisions Installation

Qty.	Part Number	Description
1	78602-02-01	Provisions Installation – RH High
1	78602-02-02	Provisions Installation – LH High
. 4	78620-01	Clamp Assembly
. 1	78633-01-01	Aft Beam Assembly (RH)
. 1	78633-01-02	Aft Beam Assembly (LH)
. 1	78634-01-00	Forward Beam Assembly
. 4	AN4-14A	Bolt
. 4	NAS1149F0463P	Washer
. A/R	--	Commercial Stainless Steel Fender Washer

CARGO POD COMPATIBLE CONFIGURATION

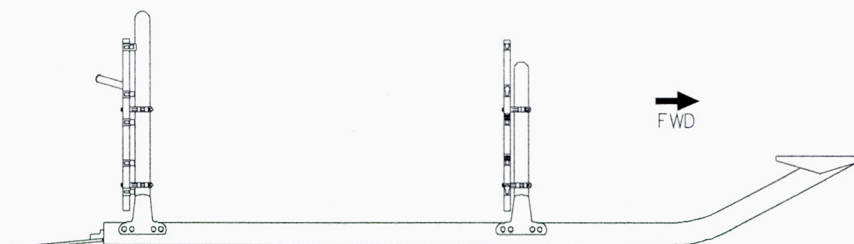


Figure 25.21 – Cargo Pod Compatible Provisions Installation

Qty.	Part Number	Description
1	78603-01-01	Provisions Installation – RH Cargo Pod Compatible
1	78603-01-02	Provisions Installation – LH Cargo Pod Compatible
. 3	78621-01	Clamp Assembly (RH)
. 3	78621-03	Clamp Assembly (LH)
. 1	78621-02	Clamp Assembly (RH – Forward Top)
. 1	78621-04	Clamp Assembly (LH – Forward Top)
. 1	78633-01-01	Aft Beam Assembly (RH)
. 1	78633-01-02	Aft Beam Assembly (LH)
. 1	78634-01-00	Forward Beam Assembly
. 4	AN4-14A	Bolt
. 4	NAS1149F0463P	Washer
. A/R	--	Commercial Stainless Steel Fender Washer

SHORT BASKET - MODEL 776

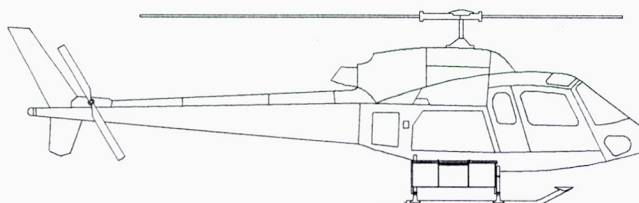


Figure 25.22 – Quick Release Cargo Basket Configuration 77601 (Short Basket)

Qty.	Part Number	Description
1	77601-01-XX	Low Short Basket Installation
. 1	78602-01-XX	Low Provisions Installation
. 1	77610-01	Short Basket Assembly
1	77601-02-XX	High Short Basket Installation
. 1	78602-02-XX	High Provisions Installation
. 1	77610-01	Short Basket Assembly
1	77601-03-XX	Eurocopter Pod Compatible Short Basket Installation
. 1	78603-01-XX	Eurocopter Pod Compatible Provisions Installation
. 1	77610-01	Short Basket Assembly

Note: -XX indicates side. Right side -01, left side -02

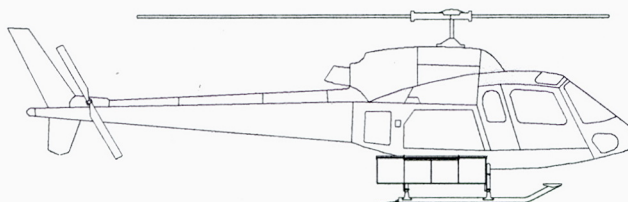
MEDIUM BASKET - MODEL 764

Figure 25.23 – Quick Release Cargo Basket Configuration 76401 (Medium Basket)

Qty.	Part Number	Description
1	76401-01-XX	Low Medium Basket Installation
. 1	78602-01-XX	Low Provisions Installation
. 1	76410-01-XX	Medium Basket Assembly
1	76401-02-XX	High Medium Basket Installation
. 1	78602-02-XX	High Provisions Installation
. 1	76410-01-XX	Medium Basket Assembly
1	76401-03-XX	Cargo Pod Compatible Medium Basket Installation
. 1	78603-01-XX	Cargo Pod Compatible Provisions Installation
. 1	76410-01-XX	Medium Basket Assembly

Note: -XX indicates side. Right side -01, left side -02

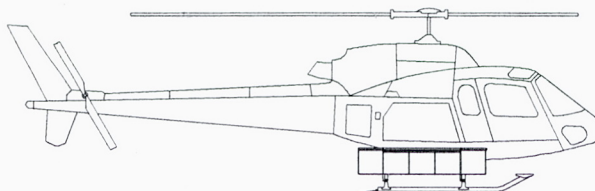
LONG BASKET - MODEL 78401

Figure 25.24 – Quick Release Cargo Basket: Configuration 78401 (Long Basket)

Qty.	Part Number	Description
1	78401-01-XX	Low Long Basket Installation
. 1	78602-01-XX	Low Provisions Installation
. 1	78410-01	Long Basket Assembly
1	78401-02-XX	High Long Basket Installation
. 1	78602-02-XX	High Provisions Installation
. 1	78410-01	Long Basket Assembly
1	78401-03-XX	Cargo Pod Compatible Long Basket Installation
. 1	78603-01-XX	Cargo Pod Compatible Provisions Installation
. 1	78410-01	Long Basket Assembly

Note: -XX indicates side. Right side -01, left side -02

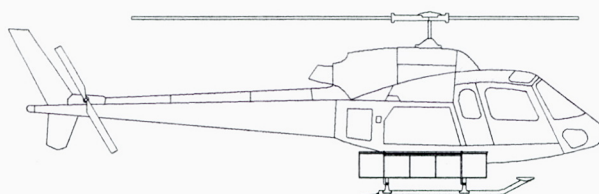
EXTRA-LONG BASKET - MODEL 94001

Figure 25.24 – Quick Release Cargo Basket: Configuration 94001 (Extra-Long Basket)

Qty.	Part Number	Description
1	94001-01-XX	Low Extra-Long Basket Installation
. 1	78602-01-XX	Low Provisions Installation
. 1	94010-01	Extra-Long Basket Assembly
1	94001-02-XX	High Extra-Long Basket Installation
. 1	78602-02-XX	High Provisions Installation
. 1	94010-01	Extra-Long Basket Assembly
1	94001-03-XX	Cargo Pod Compatible Extra-Long Basket Installation
. 1	78603-01-XX	Cargo Pod Compatible Provisions Installation
. 1	94010-01	Extra-Long Basket Assembly

Note: -XX indicates side. Right side -01, left side -02

25-11 WEIGHT AND BALANCE

This section contains weight and balance information for cargo basket models 764, 776, 784 and 940, and the universal attachment provisions 786. Each cargo basket model has multiple configurations. Refer to the weight and balance information applicable to basket model and configuration installed.

Determine the appropriate mounting position (Low, High, or Eurocopter Pod Compatible) and length (Short, Medium, or Long), then locate the configuration on Table 25.1.

Two weight and balance configurations are required: Attachment Provisions only; and Basket Installed. The basket configurations INCLUDE the provisions.

Configuration	Part Number	Standard Units						Metric Units					
		Weight	Longitudinal		Lateral			Weight	Longitudinal		Lateral		
		lb	Arm	Moment	Arm	Moment		kg	mm	mm-kg	mm	mm	mm-kg
Mounting Provisions Installation													
<i>Right Hand</i>													
Low	78602-01-01	6.4	135.6	867.5	37.2	238.0		2.9	3443.0	9970.6	944.6	2735.4	
High	78602-02-01	6.4	135.6	867.5	36.5	233.8		2.9	3443.0	9970.6	928.1	2687.6	
Cargo Pod Compatible	78603-01-01	6.8	135.4	921.0	38.8	263.6		3.1	3440.1	10 584.8	984.6	3029.6	
<i>Left Hand</i>													
Low	78602-01-02	6.4	135.6	867.5	-37.2	-238.0		2.9	3443.0	9970.6	-944.6	-2735.4	
High	78602-02-02	6.4	135.6	867.5	-36.5	-233.8		2.9	3443.0	9970.6	-928.1	-2687.6	
Cargo Pod Compatible	78603-01-02	6.8	135.4	921.0	-38.8	-263.6		3.1	3440.1	10584.8	-984.6	-3029.6	

Table 25.1 – Weight and Balance

Configuration		Standard Units						Metric Units				
		Weight	Longitudinal		Lateral			Weight	Longitudinal		Lateral	
			Arm	Moment	Arm	Moment			Arm	Moment	Arm	Moment
		lb	in	in-lb	in	in-lb		kg	mm	mm-kg	mm	mm-kg
Short Basket Installation												
<i>Right Hand</i>												
Low	77601-01-01	41.4	135.9	5627.5	45.9	1900.5		18.7	3452.6	64678.3	1166.0	21842.9
High	77601-02-01	41.4	135.9	5627.5	45.1	1868.3		18.7	3452.6	64678.3	1146.3	21473.2
Cargo Pod Compatible	77601-03-01	41.8	135.9	5681.0	47.8	1996.1		18.9	3452.1	65292.5	1212.9	22941.6
<i>Left Hand</i>												
Low	77601-01-02	41.4	135.9	5627.5	-45.9	-1900.5		18.7	3452.6	64678.3	-1166.0	-21842.9
High	77601-02-02	41.4	135.9	5627.5	-45.1	-1868.3		18.7	3452.6	64678.3	-1146.3	-21473.2
Cargo Pod Compatible	77601-03-02	41.8	135.9	5681.0	-47.8	1996.1		18.9	3452.1	65292.5	-1212.9	-22941.6
Medium Basket Installation												
<i>Right Hand</i>												
Low	76401-01-01	51.4	144.0	7401.5	46.7	2402.5		23.3	3657.6	85067.2	1187.2	27612.4
High	76401-02-01	51.4	144.0	7401.5	46.0	2362.3		23.3	3657.6	85067.2	1167.4	27150.9
Cargo Pod Compatible	76401-03-01	51.8	143.9	7455.0	48.6	2518.1		23.4	3655.5	85681.4	1234.7	28941.1
<i>Left Hand</i>												
Low	76401-01-02	51.4	144.0	7401.5	-46.7	-2402.5		23.3	3657.6	85067.2	-1187.2	-27612.4
High	76401-02-02	51.4	144.0	7401.6	-46.0	-2362.3		23.3	3657.6	85067.2	-1167.4	-27150.9
Cargo Pod Compatible	76401-03-02	51.8	143.9	7455.0	-48.6	-2518.1		23.4	3655.5	85681.4	-1234.7	-28941.1

Configuration		Standard Units						Metric Units				
		Weight	Longitudinal		Lateral			Weight	Longitudinal		Lateral	
			Arm	Moment	Arm	Moment			Arm	Moment	Arm	Moment
		lb	in	in-lb	in	in-lb		kg	mm	mm-kg	mm	mm-kg
Long Basket Installation												
Right Hand												
Low	78401-01-01	63.9	136.0	8687.5	47.4	3026.8		28.9	3453.3	99847.5	1203.1	34787.1
High	78401-02-01	63.9	136.0	8687.5	46.6	2976.6		28.9	3453.3	99847.5	1183.2	34210.6
Cargo Pod Compatible	78401-03-01	64.3	135.9	8741.0	49.3	3167.4		29.1	3452.9	100461.7	1251.2	36403.0
Left Hand												
Low	78401-01-02	63.9	136.0	8687.5	-47.4	-3026.8		28.9	3453.3	99847.5	-1203.1	-34787.1
High	78401-02-02	63.9	136.0	8687.5	-46.6	-2976.6		28.9	3453.3	99847.5	-1183.2	-34210.6
Cargo Pod Compatible	78401-03-02	64.3	135.9	8741.0	-49.3	-3167.4		29.1	3452.9	100461.7	-1251.2	-36403.0
Extra-Long Basket Installation												
Right Hand												
Low	94001-01-01	71.2	136.0	9680.3	48.2	3432.6		32.2	3453.4	111258.0	1224.6	39452.1
High	94001-02-01	71.2	136.0	9680.3	47.5	3383.1		32.2	3453.4	111258.0	1206.9	38882.9
Cargo Pod Compatible	94001-03-01	71.6	135.9	9733.8	50.2	3594.3		32.4	3453.0	111872.2	1275.1	41310.3
Left Hand												
Low	94001-01-02	71.2	136.0	9680.3	-48.2	-3432.6		32.2	3453.4	111258.0	-1224.6	-39452.1
High	94001-02-02	71.2	136.0	9680.3	-47.5	-3383.1		32.2	3453.4	111258.0	-1206.9	-38882.9
Cargo Pod Compatible	94001-03-02	71.6	135.9	9733.8	-50.2	-3594.3		32.4	3453.0	111872.2	-1275.1	-41310.3

Table 25.1 – Weight and Balance (continued)

OPTIONS: If the basket includes any of the following options, include these corrections to the weight and balance data.

Standard Units

P/N	Description	Weight	Longitudinal		Lateral	
		lb	arm in	moment in-lb	arm in	moment in-lb
70406-01	Front End Cutout	-0.3	107.8	-32.3	*	*
70405-01	Lid Step (Short Basket)	4.0	136.0	544.0	*	*
70405-01	Lid Step (Medium Basket)	5.8	145.2	842.2	*	*
70405-01	Lid Step (Long Basket)	6.7	136.0	1047.2	*	*
70405-01	Lid Step (Extra-Long Basket model 940)	7.4	136.0	1047.2	*	*
70408-01	Hangar Wheel (Short/Medium Basket)	0.8	110.0	88.0	*	*
70408-01	Hangar Wheel (Long Basket)	0.8	92.0	73.6	*	*
70408-01	Hangar Wheel (Extra-long Basket)	0.8	90.0	72.0	*	*

Metric Units

P/N	Description	Weight	Longitudinal		Lateral	
		kg	arm mm	Moment mm-kg	arm mm	moment mm-kg
70406-01	Front End Cutout	-0.1	2730.5	-273.1	*	*
70405-01	Lid Step (Short Basket)	1.8	3453.3	6215.9	*	*
70405-01	Lid Step (Medium Basket)	2.6	3688.1	9589.1	*	*
70405-01	Lid Step (Long Basket)	3.0	3454.0	10362.0	*	*
70405-01	Lid Step (Extra-Long Basket model 940)	3.4	3454.4	11744.9	*	*
70408-01	Hangar Wheel (Short/Medium Basket)	0.4	2794.0	1117.6	*	*
70408-01	Hangar Wheel (Long Basket)	0.4	2336.8	934.7	*	*
70408-01	Hangar Wheel (Extra-long Basket)	0.4	2286.0	827.5	*	*

Table 25.2 – Options Weight and Balance

*Note: Lateral arm is the same as the basket configuration. Lateral moment is calculated with the lateral arm.

25-12 STRUCTURAL FASTENER DATA

Refer to Eurocopter Standard Practices Manual for torque values not listed in this ICA.



SIGNED UNDERTAKING

In accordance with CAR 521 Aero Design Ltd. hereby

Company to hold the approval document(s):

undertake to carry out the responsibilities of a design approval document holder, as set out in Division VIII of Part V, Subpart 21 of the CARs, regarding:

1. Technical capability,
2. Service difficulty reporting,
3. Establishing a service difficult reporting system,
4. Investigation of service difficulty reports,
5. Mandatory changes,
6. Transfers,
7. Record keeping and loss or disposal of records,
8. Manuals,
9. Instructions for continued airworthiness, and
10. Supplemental integrity instructions

The responsibilities noted above are with reference to the data which may be found with one or more of the following numbers:

Transport Canada file number: C-14-0718


and / or

Project Reference number: 764, 776, 784, 940

and / or

Approval Number: SH08-16, Issue 5

X


Signature of Holder's authorized person:

01 August 2014

Date:

Vice President

Position / Title:



DECLARATION OF CONFORMITY WITH THE CERTIFICATION BASIS

In accordance with Canadian Aviation Regulations Subpart 521, I hereby declare that the design of the External Attachment Provisions and Cargo Basket Installation, as detailed in the data approved by Transport Canada on approval SH08-16, Issue 5, has been demonstrated to conform to the best of my knowledge to the basis of certification established by the Minister for that approval in file C-14-0718.

Aero Design Ltd.

per: _____

Signature

Jeff Clarke

Print Name

Vice President

Title

01 August 2014

Date



DESIGN CHANGE APPROVAL APPLICATION

DEMANDE D'APPROBATION D'UNE MODIFICATION DE LA CONCEPTION

Legal name and address of applicant Nom et adresse légal du demandeur Aero Design Ltd. 9888A Malaspina Road Powell River, BC, Canada V8A 0G3		Legal name and address of prospective holder Nom et adresse légal du titulaire éventuel Aero Design Ltd. 9888A Malaspina Road Powell River, BC, Canada V8A 0G3		Name and address for billing purposes (if different than applicant) Nom et adresse aux fins de facturation (si différent du demandeur)	
Identification of aeronautical product / Identification du produit aéronautique					
Make / Marque Eurocopter		Model / Modèle AS350, AS355 (all)		Registration / Immatriculation All eligible	
				Serial No. / N° du série All eligible	
				Part No. / N° de la pièce	
Request for (check appropriate box) / Objet de la demande (Cochez les carrés selon le cas)				Type Design Examination by Foreign Authority Examen de la définition de type par autorité étrangère	
<input type="checkbox"/> STC CTS				<input type="checkbox"/> Repair Design Approval (RDA) Approbation de la conception de réparation (ACR)	
<input type="checkbox"/> STC (single serial number) CTS (numéro de série simple)				<input type="checkbox"/> Repair Design Approval - Process Repair ACR - Processus de réparation	
<input type="checkbox"/> STC (multiple serial numbers) CTS (numéros de série multiples)				<input type="checkbox"/> Part Design Approval (PDA) Approbation de la conception de pièce (ACP)	
<input type="checkbox"/> Type Certificate Revision Revision de certificat de type				<input type="checkbox"/> Application to a foreign authority is requested La demande à une autorité étrangère est demandée.	
<input checked="" type="checkbox"/> Revision Révision No. N° SH08-16				<input type="checkbox"/> Type design examination of foreign change Examen de la définition de type modification étrangère	
				Identify Identifier	
<input type="checkbox"/> Restricted Category Catégorie restreinte					
Type of Operation Type d'opération					
Title and brief description of modification, repair or replacement part, including effects of changes (use additional pages if necessary). Refer to CAR 521.155(b)(i) for details. Titre et brève description de la modification, de la réparation ou de la pièce de rechange, y compris les effets des changements (utiliser des feuilles supplémentaires si nécessaire). Référez-vous à RAC 521.155(b)(i) pour des détails.					
Installation of external attachment provisions and cargo basket. Installation of attachment provisions on landing gear cross tubes. Installation of cargo basket (4 different sizes) on attachment provisions.					
Applicable Type Certificate (TC) / Certificat de type (CT) pertinent					
TC No. / N° de CT H-83 / H-87		Issue No. / N° de l'édition 22 / 9		Identify State of Design / Identifier l'état de conception EASA	
The applicant is responsible for the control of product manufacture / Le demandeur est responsable du contrôle de la fabrication du produit					
<input checked="" type="checkbox"/> Yes Oui					
<input type="checkbox"/> No Non					
If no, identify who is responsible Si non, identifier qui est responsable					
Documentation to be submitted Documentation à soumettre				Applicant Demandeur	
				Submitted Soumis	
				Yes Oui	
				No Non	
Proposed certification basis Proposition de base de certification				<input checked="" type="checkbox"/>	
Certification plan in accordance with CAR 521.155(d) Plan de certification selon RAC 521.155(d)				<input checked="" type="checkbox"/>	
Applicant's remarks / Remarques du demandeur Reissue is to update holder information and minor changes identified in the certification plan.					
I hereby certify that the information contained herein is correct and complete. I agree to pay charges as prescribed in Part 1, Subpart 4 of the CARs (CAR 104-Charges). Je certifie que les renseignements figurant ci-dessus sont exacts et complets. Je m'engage à payer les redevances prescrites à la sous-partie 4 de la partie I du RAC (sous-partie 104 du RAC - Redevances).					
Name and Signature of Applicant / Nom et signature du demandeur JEFF CLARKE		Title / Poste VICE PRESIDENT		Date (yyyy-mm-dd) / Date (aaaa-mm-jj) 2014-07-17	

MSI 53 – Review of Supplemental Instructions for Continued Airworthiness

APPENDIX A-3 NORMAL CATEGORY ROTORCRAFT – CAR 527

BLOCK 1

Name of the applicant for the design change approval:	Aero Design Ltd.
Description of the design change:	Installation of Quick Release Cargo Basket on Eurocopter AS350 & AS355 Series
Certification Basis of design change and revision date:	FAR 27, Amendment 27-20
CAR Standard A527.1(c) Program showing how changes to supplemental ICA made by the applicant or by the manufacturers of products and appliances installed in the aeroplane pursuant to the design change will be distributed:	Section 0-3 of Supplemental ICA (ICA 764.90, Rev. 6)
CAR Standard 513.05 (1) (g) (iv): Installation Instructions:	Installation Drawing 94001, 76401, 77601, 78401, 78602, 78603

BLOCK 2

Note: Enter "N/A" when no supplemental ICA are needed.

Regulatory Standard Reference Column 1	Design Approval Holder (DAH) ICA Reference Column 2	Applicant Means of Compliance Supplemental ICA Requirements Column 3
A527.2 (a) Manual(s) (a) The Instructions for Continued Airworthiness must be in the form of a manual or manuals as appropriate for the quantity of data to be provided.	ICA ref: Eurocopter AS350/AS355 Maintenance Manuals	Supplemental ICA ref: Single Manual (ICA764.90, Rev. 6)
A527.2 (b) Practical arrangement (b) The format of the manual or manuals must provide for a practical arrangement.	ICA ref: Eurocopter AS350/AS355 Maintenance Manual	Supplemental ICA ref: Arranged in ATA format
A527.3 The Instructions for Continued Airworthiness must contain the following manuals or sections, as appropriate, and information:		
A527.3 (a) Rotorcraft maintenance manual or section		
A527.3 (a) (1) (Introduction) (1) Introduction information that includes an explanation of the rotorcraft's features and data to the extent necessary for maintenance or preventive maintenance.	ICA ref: Eurocopter Description and Operation Manual	Supplemental ICA ref: Section 0-1
A527.3 (a) (2) (Description) (2) A description of the rotorcraft and its systems and installations including its engines, rotors, and appliances.	ICA ref: Eurocopter Description and Operation Manual	Supplemental ICA ref: Section 0-5

MSI 53 – Review of Supplemental Instructions for Continued Airworthiness

Regulatory Standard Reference Column 1	Design Approval Holder (DAH) ICA Reference Column 2	Applicant Means of Compliance Supplemental ICA Requirements Column 3
A527.3 (a) (3) Control & Operation (3) Basic control and operation information describing how the rotorcraft components and systems are controlled and how they operate, including any special procedures and limitations that apply.	ICA ref: Eurocopter Description and Operation Manual	Supplemental ICA ref: N/A
A527.3 (a) (4) Servicing (4) Servicing information that covers details regarding servicing points, capacities of tanks, reservoirs, types of fluids to be used, pressures applicable to the various systems, location of access panels for inspection and servicing, locations of lubrication points, lubricants to be used, equipment required for servicing, tow instructions and limitations, mooring, jacking, and levelling information.	ICA ref: Eurocopter AS350/AS355 Maintenance Manual, Chapter 12	Supplemental ICA ref: N/A
A527.3 The Instructions for Continued Airworthiness must contain the following manuals or sections, as appropriate, and information:		
A527.3 (b) Maintenance Instructions.		
A527.3 (b) (1) Scheduling 1) Scheduling information for each part of the rotorcraft and its engines, auxiliary power units, rotors, accessories, instruments, and equipment that provides the recommended periods at which they should be cleaned, inspected, adjusted, tested, and lubricated, and the degree of inspection, the applicable wear tolerances, and work recommended at these periods. However, the applicant may refer to an accessory, instrument, or equipment manufacturer as the source of this information if the applicant shows that the item has an exceptionally high degree of complexity requiring specialized maintenance techniques, test equipment, or expertise. The recommended overhaul periods and necessary cross-references to the Airworthiness Limitations section of the manual must also be included. In addition, the applicant must include an inspection program that includes the frequency and extent of the inspections necessary to provide for the continued airworthiness of the rotorcraft.	ICA ref: Eurocopter AS350/AS355 Maintenance Manual, Chapter 5	Supplemental ICA ref: Section 5-1
A527.3 (b) (2) Troubleshooting (2) Troubleshooting information describing probable malfunctions, how to recognize those malfunctions, and the remedial action for those malfunctions.	ICA ref: N/A	Supplemental ICA ref: N/A

MSI 53 – Review of Supplemental Instructions for Continued Airworthiness

Regulatory Standard Reference Column 1	Design Approval Holder (DAH) ICA Reference Column 2	Applicant Means of Compliance Supplemental ICA Requirements Column 3
A527.3 (b) (3) Removal/replacement (3) Information describing the order and method of removing and replacing products and parts with any necessary precautions to be taken.	ICA ref: Eurocopter AS350/AS355 Maintenance Manual, Chapter 25	Supplemental ICA ref: Section 25-1 thru 25-9
A527.3 (b) (4) General (4) Other general procedural instructions including procedures for system testing during ground running, symmetry checks, weighing and determining the center of gravity, lifting and shoring, and storage limitations.	ICA ref: Eurocopter AS350/AS355 Maintenance Manual, Chapter 7 and 8	Supplemental ICA ref: Section 25-11
A527.3 (c) Access (c) Diagrams of structural access plates and information needed to gain access for inspections when access plates are not provided.	ICA ref: N/A	Supplemental ICA ref: N/A
A527.3 (d) Special inspections (d) Details for the application of special inspection techniques including radiographic and ultrasonic testing where such processes are specified.	ICA ref: Eurocopter AS350/AS355 Maintenance Manual, Chapter 5	Supplemental ICA ref: Section 5-1
A527.3 (e) Protective treatment (e) Information needed to apply protective treatments to the structure after inspection.	ICA ref: Eurocopter Standard Practices Manual, Chapter 20	Supplemental ICA ref: Section 5-3
A527.3 (f) Fasteners, torque values, etc (f) All data relative to structural fasteners such as identification, discard recommendations, and torque values.	ICA ref: Eurocopter Standard Practices Manual, Chapter 20	Supplemental ICA ref: Section 25-12
A527.3 (g) Special tools (g) A list of special tools needed.	ICA ref: Eurocopter Tools Catalog	Supplemental ICA ref: N/A

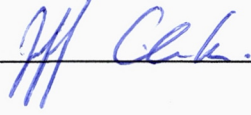
MSI 53 – Review of Supplemental Instructions for Continued Airworthiness

BLOCK 3

Note: The statement in block 5 does not constitute an approval of the Airworthiness Limitations Section. Airworthiness Limitations differ from other maintenance tasks, in that they are mandatory, as a direct condition of the approval of the type design. They are therefore referenced directly in the approval document itself. However, they must also be included in the Supplemental Instructions for Continued Airworthiness.

A527.4 AWL - Separate Section 1 The Instructions for Continued Airworthiness must contain a section titled Airworthiness Limitations that is segregated and clearly distinguishable from the rest of the document. This section must set forth each mandatory replacement time, structural inspection interval, and related structural inspection procedure approved under 527.571. If the Instructions for Continued Airworthiness consist of multiple documents, the section required by this paragraph must be included in the principal manual. This section must contain a legible statement in a prominent location that reads: "The Airworthiness Limitations section is approved by the Minister and specifies maintenance required by any applicable airworthiness or operating rule unless an alternative program has been approved by the Minister."	ICA ref: Eurocopter AS350/AS355 Maintenance Manual, Chapter 4	Supplemental ICA ref: Chapter 4
---	--	---------------------------------

BLOCK 4 – Applicant Statement of Compliance

The Supplemental ICA referenced above comprises the complete listing of supplemental ICA necessary to show compliance with the regulatory standard that supports this change in type design.	
Applicants Signature: 	Date: 17 July 2014
Applicants Name: Jeff Clarke, Vice President	

BLOCK 5 – Minister's Statement of Acceptability

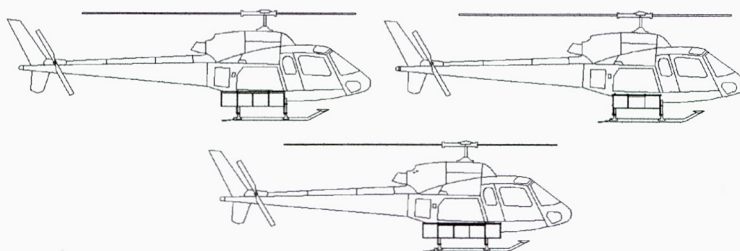
The design change is adequately supported by existing ICA and/or supplemental ICA, as identified above and is acceptable to the Minister.			
Reviewer's Name:	Phone #	Email:	Mail Routing Symbol:
Signature:	Date:	NAPA Number:	

INSTRUCTIONS FOR CONTINUED AIRWORTHINESS ICA 764.90

EUROCOPTER AS350 & AS355 SERIES

QUICK RELEASE CARGO BASKET

MODELS: 764, 776, 784, 940



TCCA Supplemental Type Certificate No. SH08-16
FAA Supplemental Type Certificate No. SR02680NY
EASA Supplemental Type Certificate No. _____

Preface

These Instructions for Continued Airworthiness shall be included in the rotorcraft Maintenance Manual when the Quick Release Cargo Basket installed in accordance with AERO Design Ltd. Document Control Lists:

- DCL764-1 (for Installation 76401), Revision 4,
- DCL776-1 (for Installation 77601), Revision 4,
- DCL784-1 (for Installation 78401), Revision 4,
- DCL940-1 (for Installation 94001), Revision 1,
- DCL786-1 (for mounting provision), Revision 3, or later approved revision, is installed.

The information contained herein supplements the information in the basic Maintenance Manual. For Maintenance practices and procedures not contained in these Instructions for Continued Airworthiness refer to the basic Maintenance Manual and its approved supplements.

Revision 6
Date: 15 July 2014

Aero Design Ltd.



9888A Malaspina Road, Powell River, BC, V8A 0G3
Phone: 604-483-2376
Fax: 604-483-2372
www.aerodesign.ca

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RECORD OF REVISIONS

Revision Number	Issue Date	Date Inserted	By
0	25 February 2008		Original Issue
1	24 June, 2009		
2	22 December 2009		
3	12 April 2010		
4	24 October, 2011		
5	02 August, 2012		
6	15 July 2014		

LIST OF EFFECTIVE PAGES

List of Revisions	Revision 0 (Original Issue)	25 February, 2008
	Revision 1	24 June, 2009
	Revision 2	22 December, 2009
	Revision 3	12 April, 2010
	Revision 4	24 October, 2011
	Revision 5	02 August, 2012
	Revision 6	15 July 2014

List of Effective Pages

<u>Description</u>	<u>Page</u>	<u>Revision</u>	<u>Description</u>	<u>Page</u>	<u>Revision</u>
Cover	1	6	25-50-00	20	4
Revision Record	2	6		21	4
List of Effective Pages	3	6		22	4
Table of Contents	4	6		23	6
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04-00-00	6	6		25	4
05-00-00	7	6		26	6
	8	6		27	6
	9	6		28	6
	10	6		29	6
	11	6		30	6
11-00-00	12	6		31	6
	13	6		32	6
25-50-00	14	6		33	6
	15	6		34	6
	16	4		35	6
	17	6			
	18	4			
	19	4			

NOTE

Revised text is indicated by a black vertical line. A revised page with only a vertical line next to the page number indicates that text has shifted or that non-technical correction(s) were made on that page. Insert latest revision pages; dispose of superseded pages.

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CHAPTER 0 – INTRODUCTION

0-1 SCOPE

The following Instructions for Continued Airworthiness (ICA) satisfy the requirements of 14 CFR 27.1529, and provide the information necessary to complete the on-going maintenance and inspections required for rotorcraft embodying the Quick Release Cargo Basket as described herein.

0-2 DEFINITIONS AND ABBREVIATIONS

ICA - Instructions for Continued Airworthiness
LH - Left Hand
RH - Right Hand

0-3 DISTRIBUTION

Copies of this ICA and amendments shall be distributed to all known purchasers of the Quick Release Cargo Basket. Requests for a copy may be made in writing to:

Aero Design Ltd.
9888A Malaspina Road
Powell River, BC, Canada
V8A 0G3
Email: info@aerodesign.ca

Any changes will be sent to Transport Canada. All changes will be recorded in the Record of Revisions page at the front of this document.

0-4 COMPATIBILITY

Prior to incorporating this modification, the installer shall establish that the inter-relationship between this change and any other modification(s) incorporated will not adversely affect the airworthiness of the helicopter.

CAUTION : This installation is NOT compatible with fixed or pop-out float installations.

0-5 GENERAL DESCRIPTION

The cargo basket installation is a metal mesh basket installed to the side of the helicopter on beams attached to the landing gear cross tubes. The quick release basket allows for the installation and removal of the basket without tools, leaving the mounting beams in place.

The basket itself is made of a steel welded tubing structure, and lined with expanded steel mesh. The basket has a hinged lid with a self-locking handle.

The beams consist of a steel tube bolted to a clamp on the cross-tube. The quick release mechanism is built into the steel tube.

CHAPTER 4 - AIRWORTHINESS LIMITATIONS

Transport Canada

The Airworthiness Limitations section is approved by the Minister and specifies maintenance required by any applicable airworthiness or operating rule unless an alternative program has been approved by the Minister.

FAA

The Airworthiness Limitations section is FAA approved and specifies inspections and other maintenance required under Secs. 43.16 and 91.403 of the Federal Aviation Regulations unless an alternative program has been FAA approved.

EASA

The Airworthiness Limitations section is approved and variations must also be approved.

No additional airworthiness limitations have been imposed due the installation of the Quick Release Cargo Basket.

CHAPTER 5 – INSPECTION REQUIREMENTS

5-1 INSPECTION SCHEDULE

Continued airworthiness is contingent upon compliance with the following inspection items. These items shall be completed in conjunction with the rotorcraft Maintenance Inspection schedule, or other approved program, or upon removal and replacement of any component of Quick Release Cargo Basket.

Daily Inspection

1. Inspection Area: Basket

- a) Inspect the basket attachment to the beams for condition and security. Ensure quick release mechanism is completely extended, flush with the outboard surface of the beam. If pin does not completely extend, or spring tension is not sufficient to retain basket, replace spring, refer to section 25-9.
- b) Inspect latching of the lid for correct operation. Replace handle brackets on basket if handle is not retained in latched position. Refer to section 25-6.

300 Hour or Annual Inspection

1. Inspection Area: Basket

- a) Visually inspect tube-to-tube welds and mesh-to-tube welds for cracks, corrosion or other damage.
- b) Visually inspect basket mesh for damage.
- c) Visually inspect lid prop for condition and operation. Ensure prop does not extend beyond catch and catch extends to hold lid open. Refer to section 25-8 for lid prop replacement.
- d) Visually inspect handle for condition and operation. Ensure springs on lid brackets hold handle in to guide handle to engage secondary catch on handle brackets. Refer to section 25-7 for handle spring replacement.

2. Inspection Area: Beams

With the basket removed:

- a) Visually inspect beams and clamps attaching basket to the helicopter for cracks, corrosion or other damage.
- b) Visually inspect lugs attaching the basket to the beams for security and damage.
- c) Visually inspect bolts attaching beams to clamps and clamps to cross tubes for condition and security.
- d) Visually inspect peg step on aft beam for crack corrosion or other damage. Inspect grip surface on top of peg for condition.

Special Inspections

1. Following a hard landing inspect the Quick Release Cargo Basket installation in accordance with the 300 hour or annual inspection listed above.
2. Any joints using a helical thread insert (Helicoil) shall be inspected on assembly in accordance with the procedure for checking self locking nuts and screws specified in the Eurocopter Standard Practices Manual, Section 20.02.05.601

5-2 DAMAGE LIMITS / REPAIR INSTRUCTIONS

If damage is found in the inspections above, repair in accordance with the instructions below.

1. Basket and Lid Tubing*Damage Limits:*

- a) Deformation of any tubing between welded joints not exceeding 0.25 inches in any direction must be repaired in accordance with the instructions below.
- b) Corrosion not exceeding 0.015 inches deep to be buffed out to a smooth contour.
- c) Corrosion exceeding 0.015 inches deep to be repaired in accordance with the instructions below.

Repair Instructions:

- a) Repair Basket in accordance with AC43.13-1B, Chapter 4, Section 5, Welding, as required.
- b) Basket is fabricated from the following materials:

Attachment Hoops:	1" square steel tube and/or 1/2" square steel tube
Lid and Rim:	3/4" square steel tube
Frames:	1/2" square steel tube
- c) Touch up with polyurethane paint as required following repairs.

2. Basket and Lid Mesh*Damage Limits:*

- a) The basket mesh may be deformed or stretched without limit, so long as the welds attaching the mesh to the basket or lid are not compromised. If welds are compromised, repair in accordance with instructions below.
- b) Tears in the mesh not exceeding 4 cells in any direction may be repaired by patching. Maximum one repair patch per bay. See instructions below.

Repair Instructions:

- a) Repair mesh to tube welds in accordance with AC43.13-1B, Chapter 4, Section 5, Welding, as required.

Mesh:	3/4" 16 ga. (0.040") expanded steel mesh
-------	--

b) Patch repair:

- a. Cut two aluminum sheets, minimum 0.040 inches thick, extending to at least 1 complete cell outside of torn area. Drill #9 holes in the corners of the sheet, located to clear the mesh when installed.
- b. Attach patches, one inside and one outside, to the mesh with AN3 Bolts, AN970-3 Washers, and MS21044N3 Nuts.

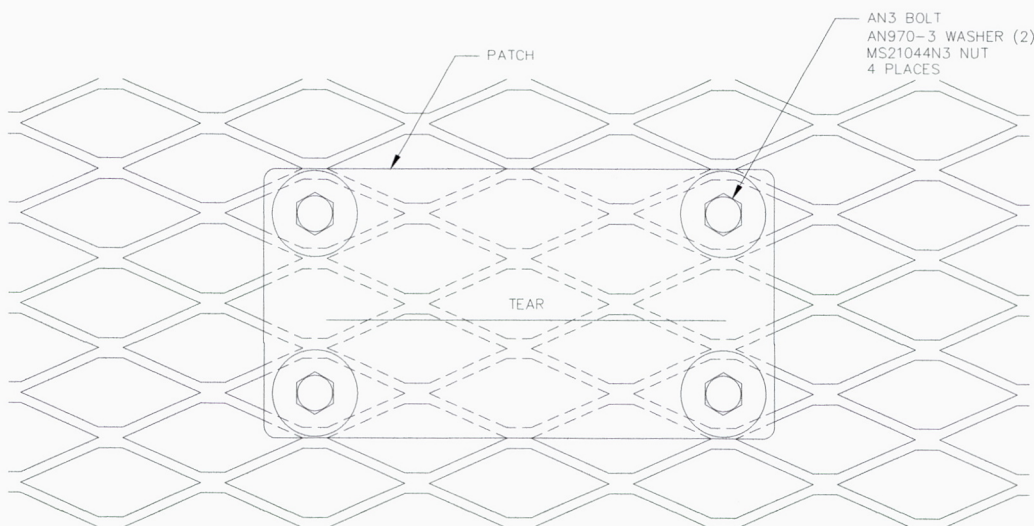


Figure 5.1 – Patch Repair

- c) Touch up with polyurethane paint as required following repairs.

3. Mounting Beams

DO NOT REPAIR DAMAGE TO BEAMS IF BEYOND THE LIMITS BELOW.

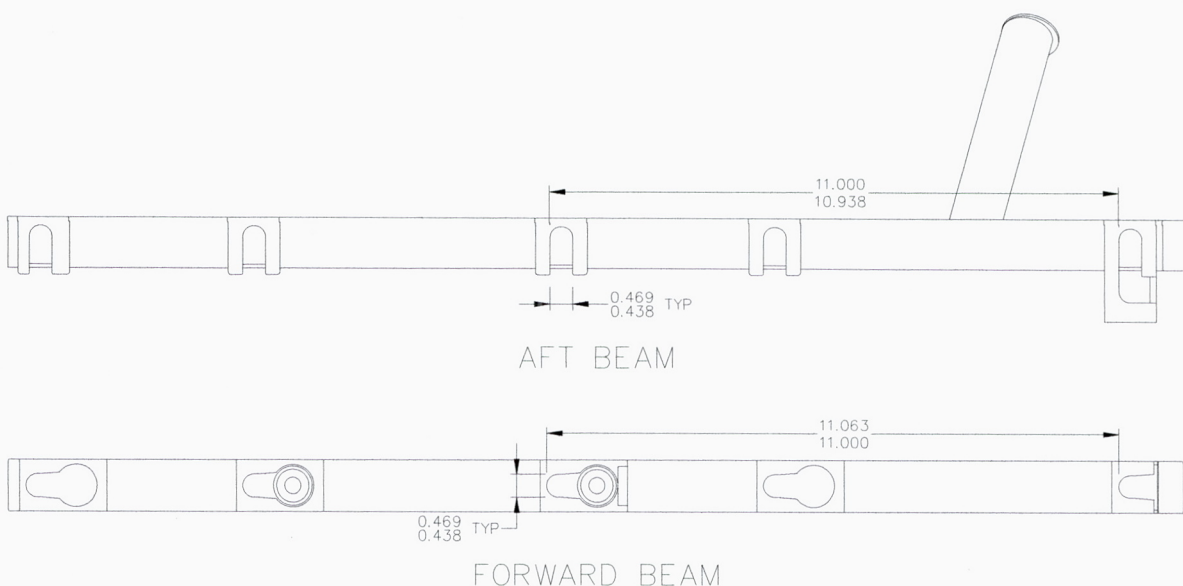


Figure 5.2 – Critical Keyway Dimensions

- a) Nicks and/or gouges on any face up to 0.015" deep and 0.125" wide may be dressed out to a smooth contour.
- b) Critical keyway dimensions are shown in Figure 5.2. Attempt to insert 15/32 drill shank into bottom end of keyway. If drill can be inserted, slot is worn beyond limit.
- c) Touch up with polyurethane paint as required following repairs.

4. Aluminum Clamps

DO NOT REPAIR DAMAGE TO CLAMPS IF BEYOND THE LIMITS BELOW.

- a) Nicks and/or gouges on the top or bottom surface up to 0.060" deep and 0.125" wide may be dressed out to a smooth contour. Refer to Figure 5.2.
- b) Nicks and/or gouges on the outer edge up to 0.030" deep and 0.125" wide may be dressed out to a smooth contour. Refer to Figure 5.2.
- c) Any cracking on any surface is unacceptable.

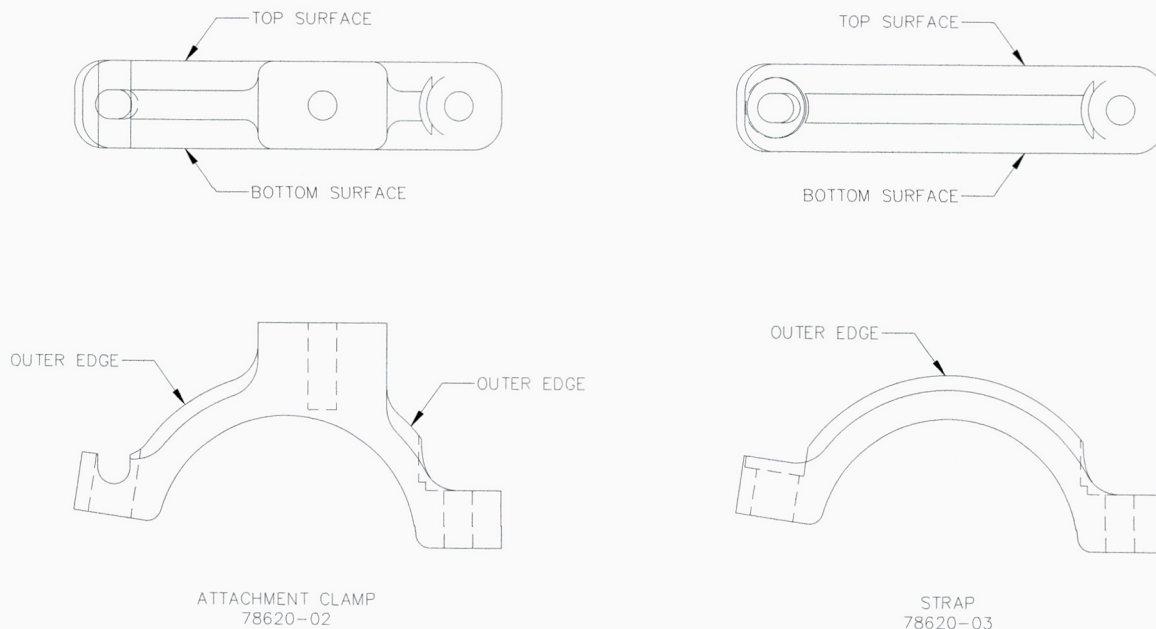


Figure 5.3 – Aluminum Clamps
(78620-01 shown, 78621-XX similar)

4. Helical Thread Inserts

Helical thread inserts (Helicoils) found to be damaged shall be repaired in accordance with the Eurocopter Standard Practices Manual, Section 20.03.04.404.

Part numbers:

1/4-28 insert: 3591-4CN375

5-3 PROTECTIVE TREATMENT INFORMATION**1. Beams**

The steel beams are supplied powder coated. If the powder coat is damaged, touch up with polyurethane paint.

Alternate: The steel beams are supplied painted. If the paint is damaged, touch up with polyurethane paint.

Aft beam only: the peg step has a 1" wide strip of 3M SafetyWalk grip tape applied to the top surface. If the grip tape is damaged it may be replaced with equivalent grip tape or may be painted with Randolph X1567 WingWalk grip paint or equivalent grip paint.

2. Clamps

The aluminum clamps are supplied painted. If the paint is damaged, touch up with polyurethane paint.

Alternate: The aluminum clamps are supplied anodized. If the anodizing is damaged, prime with epoxy urethane primer and paint with polyurethane paint.

3. Cargo Basket

The cargo basket is supplied powder coated. If the powder coat is damaged, touch up with polyurethane paint.

CHAPTER 11 – MARKINGS AND PLACARDS

The following markings and placards are used with the Quick Release Cargo Basket Installation, located on basket lid:

a) Short Basket, Model 776**Basket S/N 77601-01 thru 77601-14****Basket S/N 77601-15 and Sub.****b) Medium Basket, Model 764****RH Basket S/N 76401-01 thru 77601-18****RH Basket S/N 76401-19 and Sub.****LH Basket S/N 76402-01 thru 76402-42****LH Basket S/N 76402-43 and Sub.****c) Long Basket, Model 784****Basket S/N 78401-01 thru 78401-54****Basket S/N 78401-55 and Sub.**

d) Extra Large Basket, Model 940

Basket S/N 94001-01 thru 94001-37



Basket S/N 94001-38 and Sub.



CHAPTER 25 – EQUIPMENT AND FURNISHINGS

SECTION 50 – CARGO COMPARTMENTS

The Quick Release Cargo Basket Installation may be applied to the right and/or left side of the helicopter.

25-1 BEAMS INSTALLATION

Refer to section 25-10 for part numbers.

The HIGH beam mounting position (configuration 78602-02-XX) is standard and uses the LOWER set of holes in the beams. The LOW beam mounting position (configuration 78602-01-XX) is required if the helicopter is fitted with cargo compartment extenders (“squirrel cheeks”), and uses the UPPER set of holes in the beams.

Installation pictures show LEFT SIDE, HIGH mounted installation.

1. Position two (2) Clamp Assemblies 78620-01 around each cross tube. Fasten clamps using one AN4-14A Bolt, two (2) NAS1149F0463P Washers and MS21044N4 Nut through one side of the Clamp Assembly and one FT4F-175H T-Bolt and 3D0006-4 Self-Aligning Nut through the other side of the Clamp Assembly. Fully torque AN4-14A bolt, do not tighten T-Bolt.

Note orientation (refer to figure 25.1 thru 25.3):

Forward – Top:	Lug Outboard
Forward – Bottom:	Lug Inboard
Aft – Top:	Lug Inboard
Aft – Bottom:	Lug Inboard

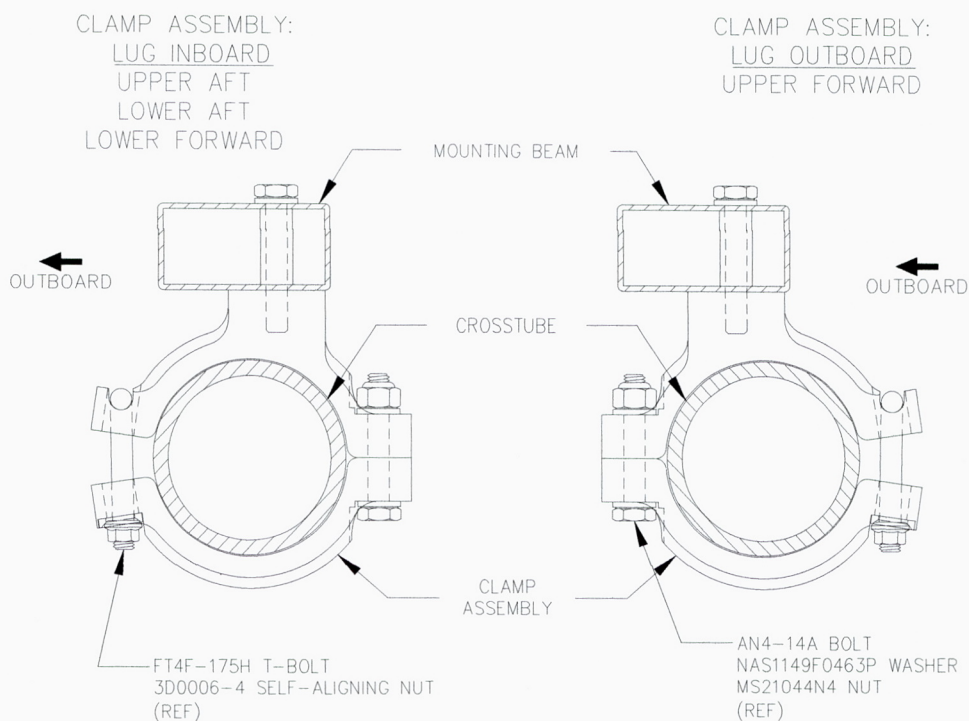


Figure 25.1 – Beam Installation – Clamp Detail

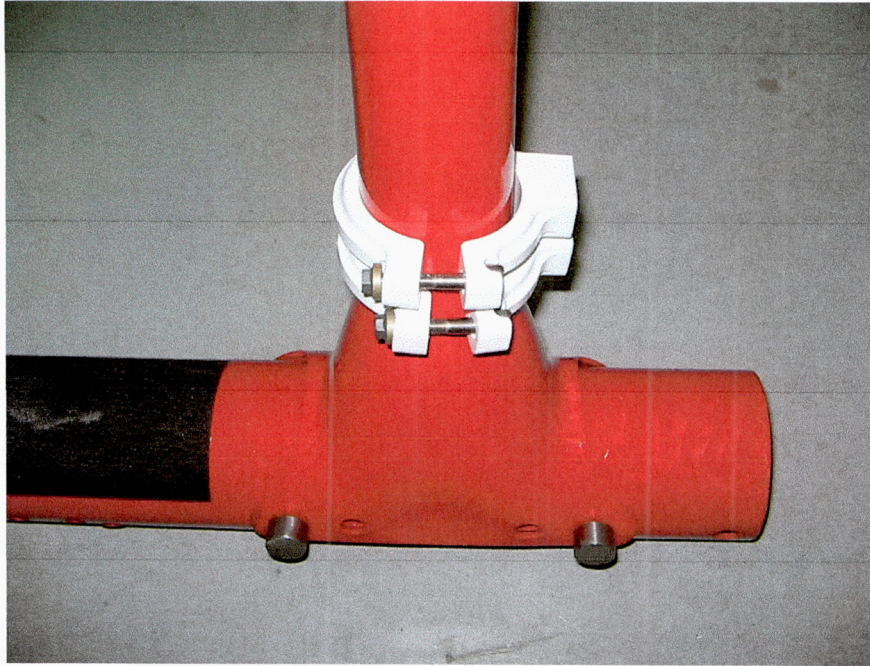


Figure 25.2 – Aft Cross Tube Clamps

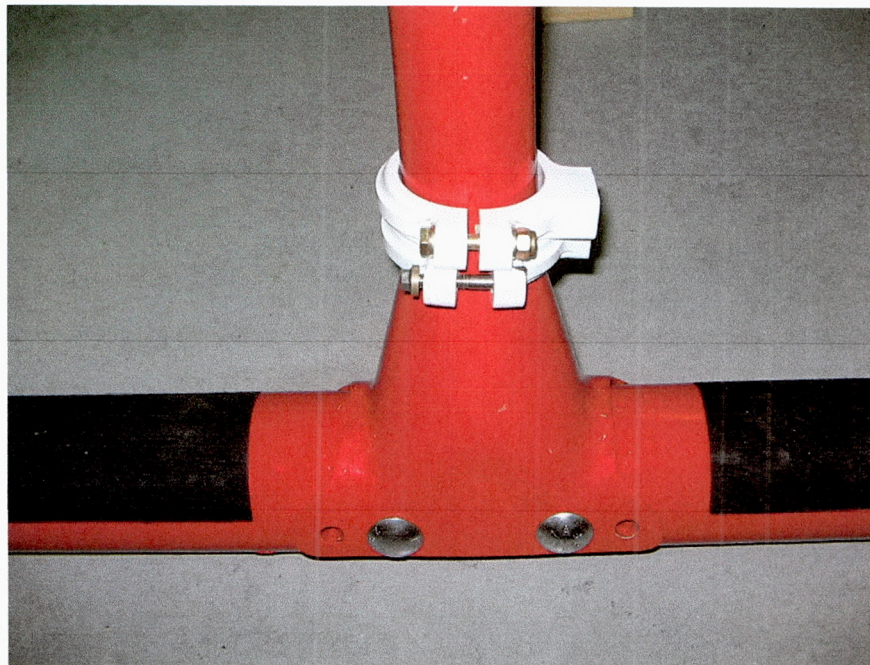


Figure 25.3 – Forward Cross Tube Clamps

2. Attach Forward Beam Assembly to Clamp Assemblies on forward cross tube with two (2) AN4-14A Bolts and two (2) NAS1149F0463P Washers. Locate clamps on LOWER set of holes in beam for HIGH installation, or UPPER set of holes for LOW installation. Do not fully tighten bolts. Position beam so that the bottom clamp is slightly above the weld at the bottom of the cross tube. Tighten clamp bolts enough to prevent slippage on the tube while adjusting installation in following steps.

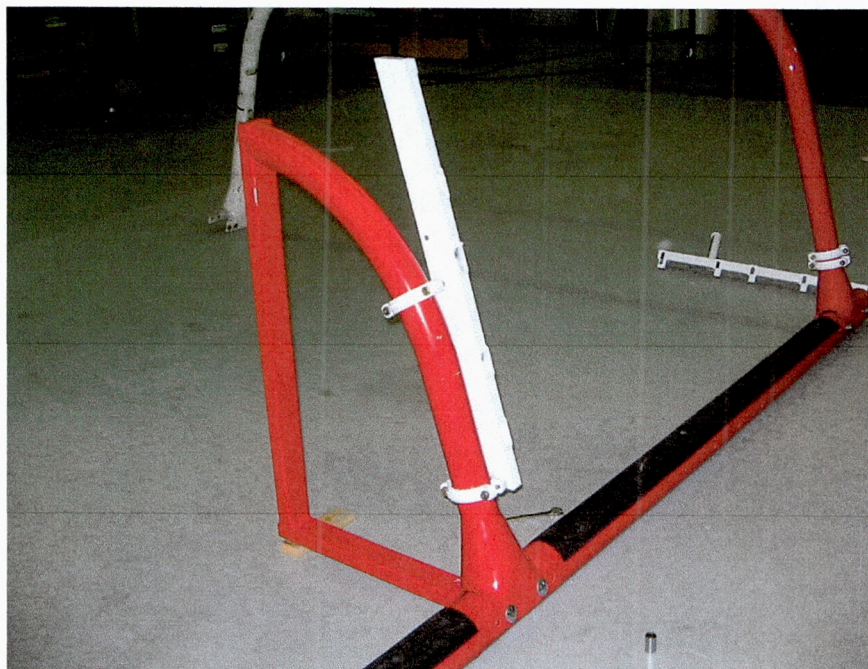


Figure 25.4 – Forward Beam Installation
(Looking aft)

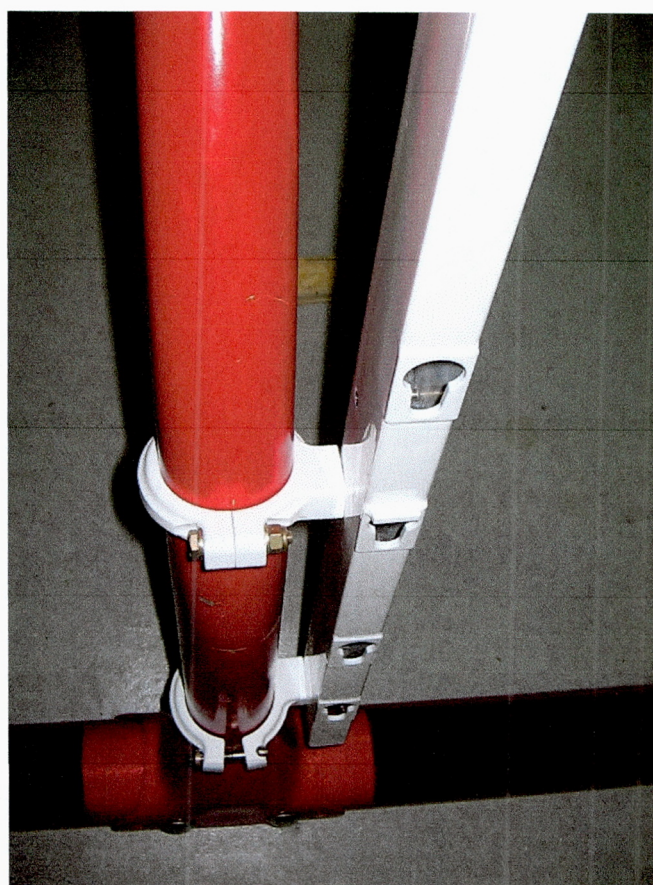


Figure 25.4 – Forward Beam Installation
(Looking down)

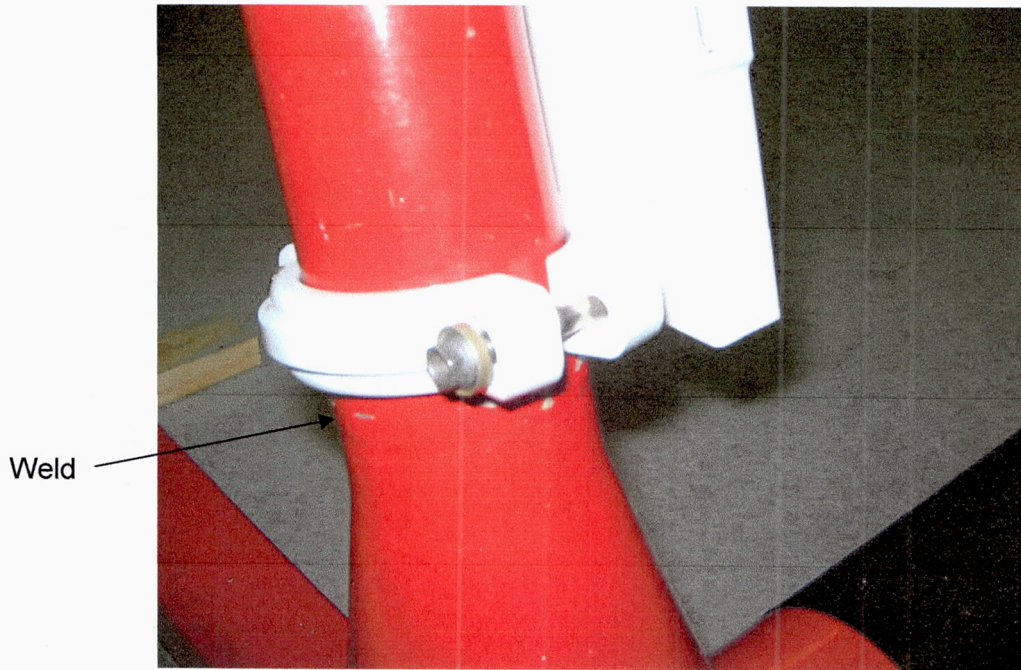


Figure 25.5 – Forward Beam Installation, Bottom Clamp

3. Attach Aft Beam Assembly to Clamp Assemblies on aft cross tube with two (2) AN4-14A Bolts and two (2) NAS1149F0463P Washers. Locate clamps on LOWER set of holes in beam for HIGH installation, or UPPER set of holes for LOW installation. Do not fully tighten bolts. Position beam so that the bottom clamp is slightly above the weld at the bottom of the cross tube. Tighten clamp bolts enough to prevent slippage on the tube while adjusting installation in following steps.



Figure 25.6 – Aft Beam Installation
(Looking aft)

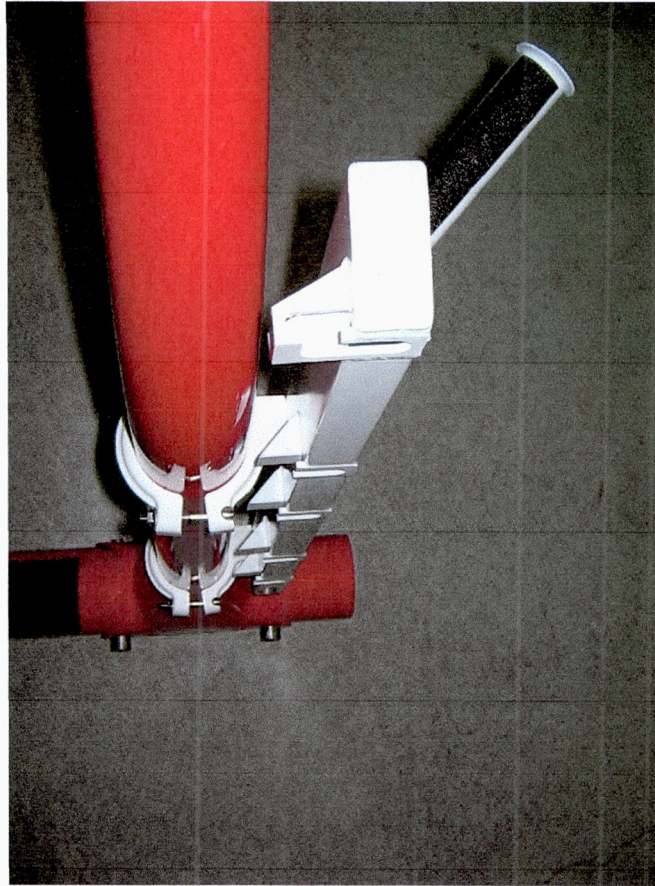


Figure 25.7 – Aft Beam Installation
(Looking down)



Figure 25.8 – Aft Beam Installation, Bottom Clamp

4. Using a large square or straight edge as a reference, align the forward and aft beams with the cross tubes. Loosen bolts if required to adjust the beam, re-tighten clamp bolts after adjusting.

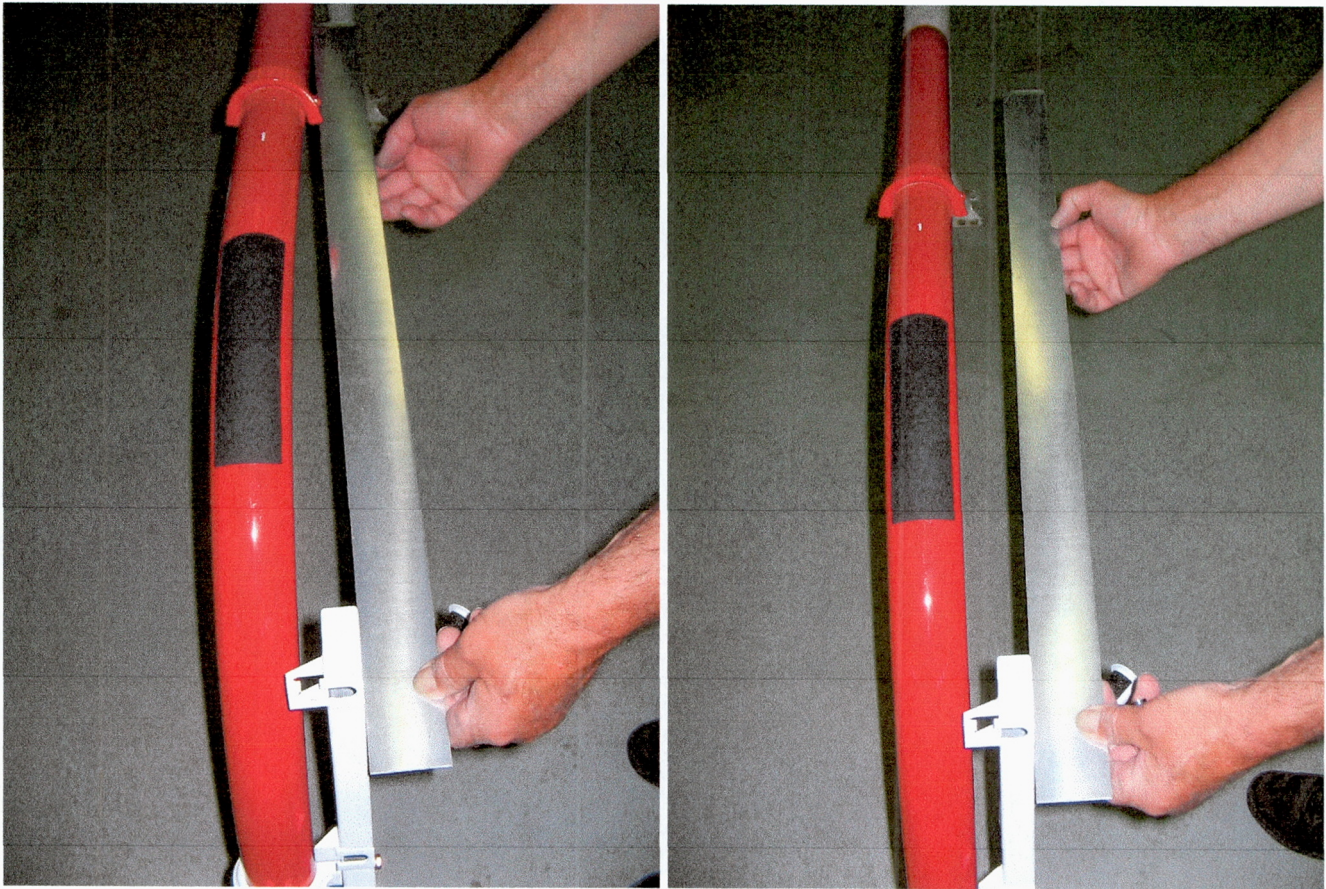


Figure 25.9 – Beam Alignment

(Note left picture is not parallel to cross tube, right picture is correct)

5. In order to easily snap the basket in and out of the beams, the beams must be correctly aligned. The following steps detail the alignment procedures. Ensure beams are approximately parallel and aligned front to back before starting. For all procedures listed below, set the basket on the beams as described, remove the basket to apply the correction and re-check with the basket after.

- a. *Beams too close together or too far apart (basket cannot be installed in top slots):*

Set upper aft attachment fitting on basket into top keyway in aft beam and slide basket aft. Attempt to insert upper forward fitting into top keyway of forward beam.

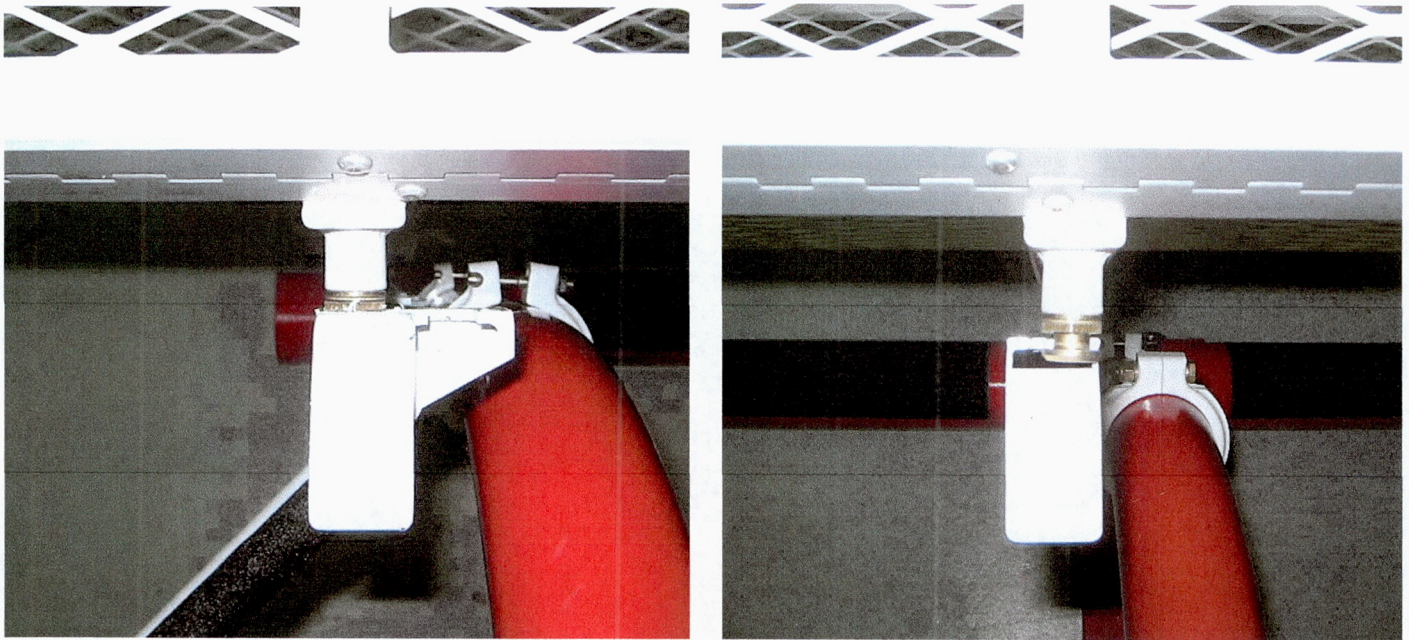


Figure 25.10 – Beam Adjustment, Step 1 – Beams too close together
(Looking down, left picture aft beam, right picture forward beam)

The basket attachment fittings should be centred on the beams to allow for some fore/aft movement on the aft beam if required due to landing conditions or changes in weight and balance. Note in Figure 25.10 the aft fitting is bottomed in the aft slot and the forward fitting cannot be inserted. In this case the AFT beam would require shimming.

Using $\frac{1}{4}$ " commercial stainless steel fender washers, shim the forward or aft beam as required by inserting washer(s) between the beam and both clamps. Only use enough shims to allow basket to enter the TOP slot.

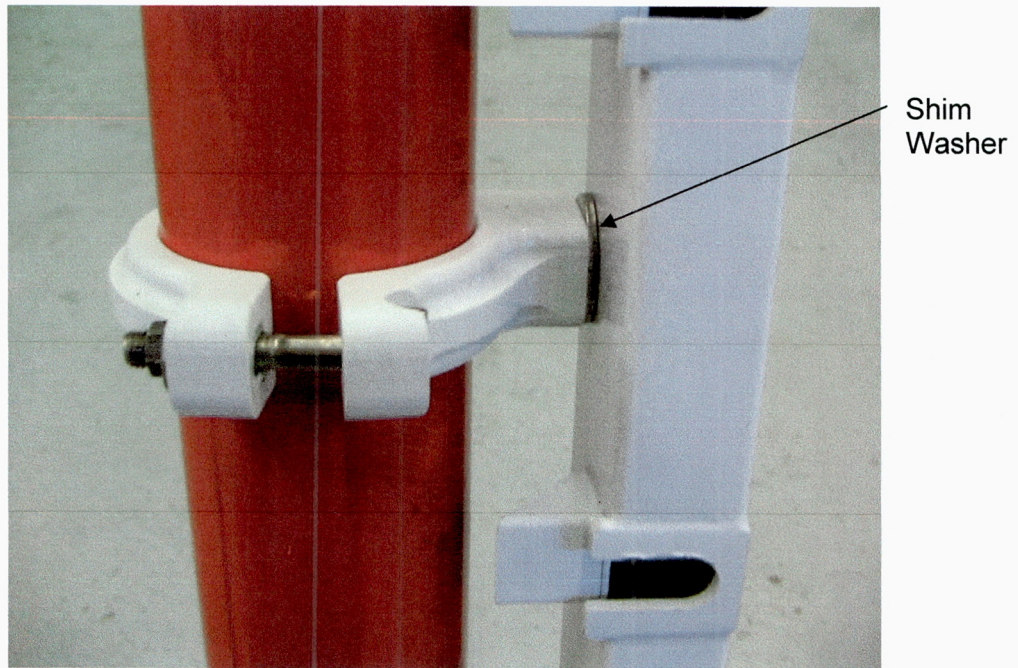


Figure 25.11 – Beam Adjustment, Step 1 – Shim Rear Beam

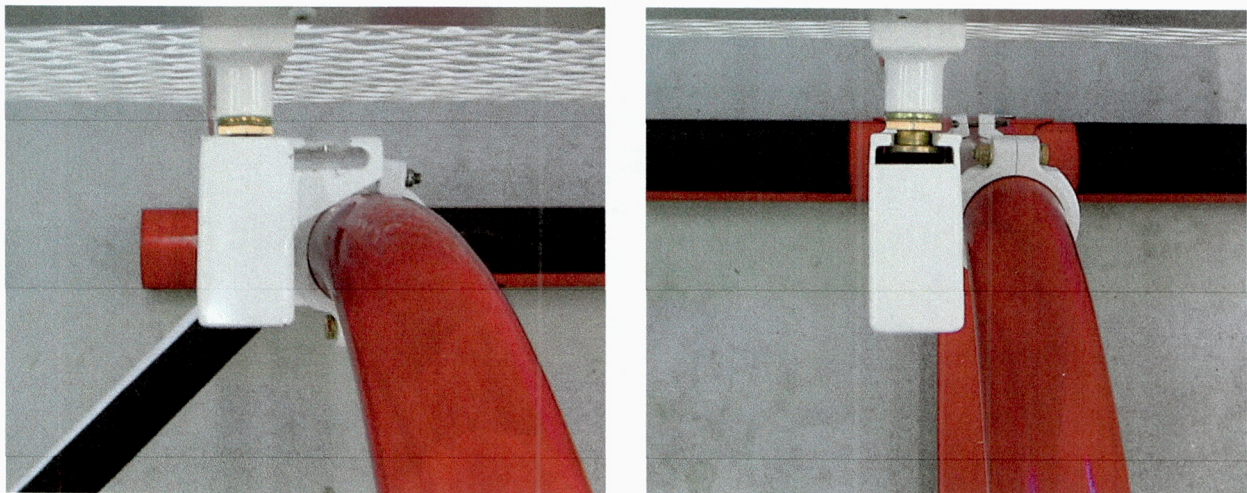


Figure 25.12 – Beam Adjustment, Step 1 – Basket Attachments After Shimming

- b. *Basket in top slots, resting with bottom fittings against beams (not in keyways), forward fitting does not line up with keyway (fore/aft):*

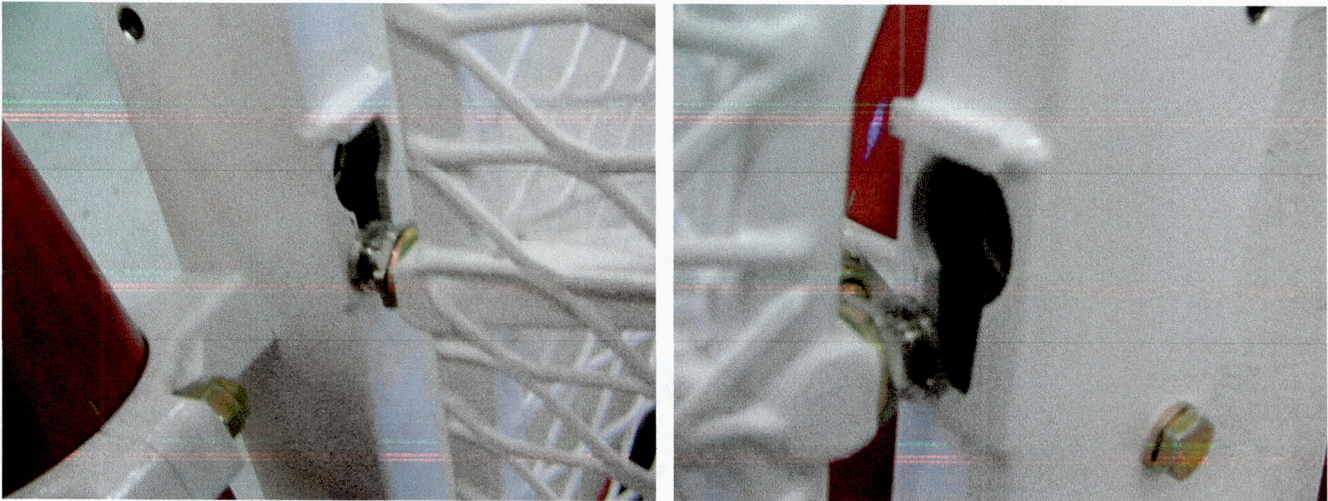


Figure 25.13 – Basket Adjustment Step 2 – Forward Fitting Out of Alignment
(Left picture is looking aft, right picture is looking forward)

The beams are not at the same height. Raise or lower the aft beam along the aft cross tube until the bottom fittings on the basket are aligned with both keyways.

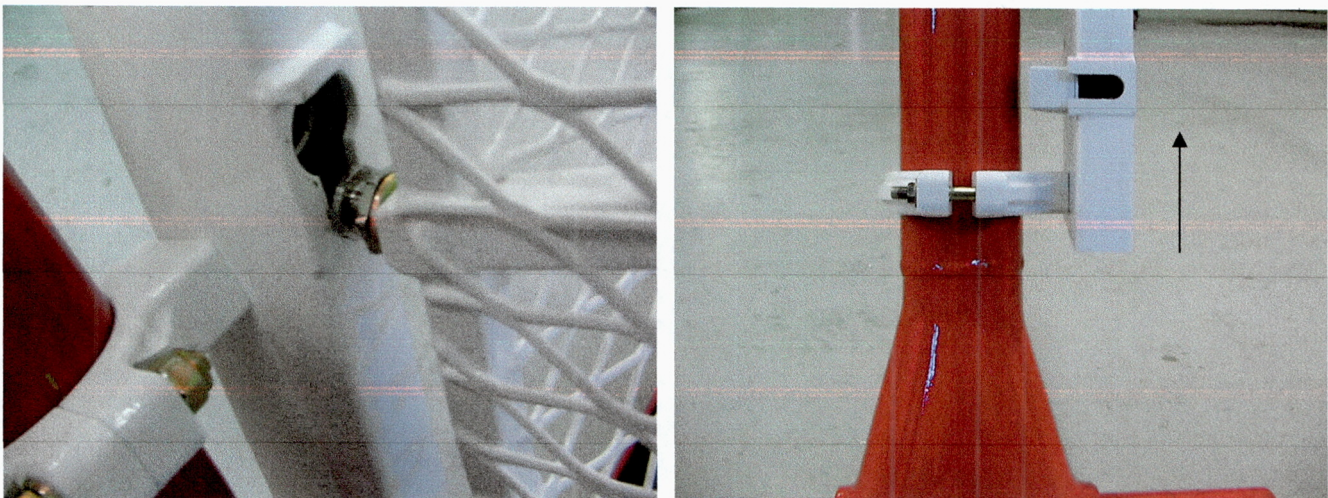


Figure 25.14 – Basket Adjustment Step 2 – Forward Fitting Aligned
(Aft beam moved up to align forward fitting with keyway)

- c. *Basket in top slots, resting with bottom fittings against beams, bottom aft fitting bottoms out in keyway.*

The landing gear cross tubes are not parallel. Using ¼" commercial stainless steel fender washers, shim the top or bottom (as required) to align the bottom fitting on the basket with the keyway.

- d. *Basket in top slots, resting with bottom fitting against beams, bottom fitting is away from the surface of the forward beam (outboard):*

The beams are not parallel. Adjust the forward beam up or down the forward cross tube until both bottom fittings sit flat on the beams.

- e. *Basket in all keyways, does not slide smoothly in and out of forward beam:*

Opposite attachment fittings on the basket (top front and bottom aft or bottom front and top aft) may be shimmed out using a maximum of two (2) additional NAS1149F0632P washers to allow the basket to slide into the keyways without twisting.

6. Bolts attaching beams to clamps (AN4-14A) that have been shimmed require longer bolts. There must be at least 0.38" of thread protruding with shims in place.

1 washer – AN4-14A bolt (no change)

2-3 washers – AN4-15A bolt

4-5 washers – AN4-16A bolt

Shimming in excess of 5 washers may indicate incorrect alignment in step 5. Confirm corrective actions taken, and if shims are still required, contact Aero Design Ltd. for further instructions.

7. Torque all ¼" fasteners (12 places) to 30-40 inch-pounds (3.4-4.5 N-m). Note: A gap will remain on the side of the clamp assembly with the T-bolt as shown in Figure 25.1.

25-2 CARGO POD COMPATIBLE BEAMS INSTALLATION

A helicopter that is fitted with Side Cargo Compartment Extenders ("Squirrel Cheeks" or Cargo Pods) requires different Clamp Assemblies as listed in section 25-10, (configuration 78603-01-XX). Installation procedure is the same as listed in Section 25-1, with the beams mounted in the LOW position.

Ensure Clamp Assemblies are correct for the side of the helicopter the basket is to be installed on. The beam mounting lug is on the BOTTOM of the clamp and points AFT. The forward top clamp is different than the other three clamps.

25-3 BEAMS REMOVAL

Refer to Figure 25.1.

1. Remove Cargo Basket. Refer to section 25-5.
2. Remove fasteners securing clamp assemblies to the forward cross-tube. Remove Beam Assembly with clamps.
3. Remove fasteners securing clamp assemblies to the aft cross-tube. Remove Beam Assembly with clamps.

25-4 BASKET INSTALLATION

Refer to Figure 25.15 and Figure 25.16. Refer to section 25-6 for part numbers.

1. Set basket upper aft attachment into upper keyway in aft beam. Forward end of basket may rest on floor.
2. Lift basket from forward end, slide lower aft attachment into keyway on aft beam.
3. Raise forward end of basket to forward beam, sliding basket aft, and lift until lower attachment fitting hits stop over keyway.
4. Push fitting into lower keyway, ensure top fitting enters top keyway, and slide basket down until locked. Pull up on forward end basket to ensure basket is locked in place on aft beam.

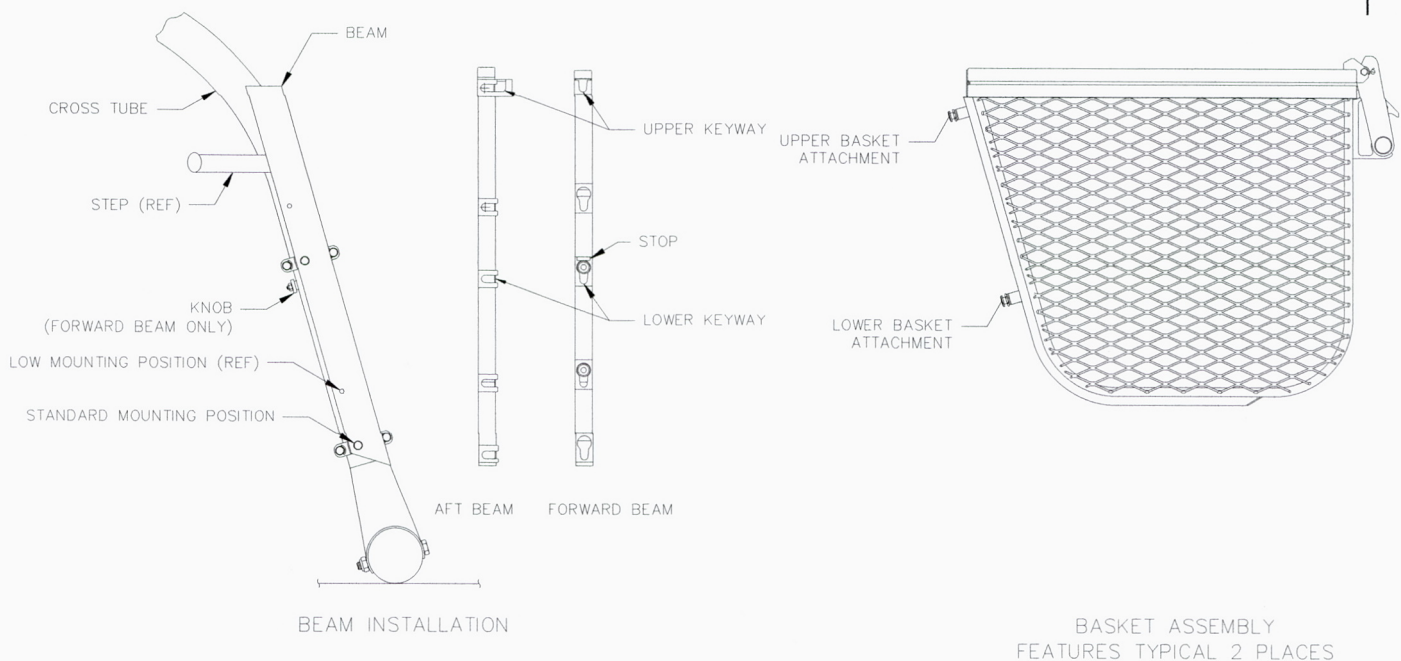


Figure 25.15 – Basket Attachment Features

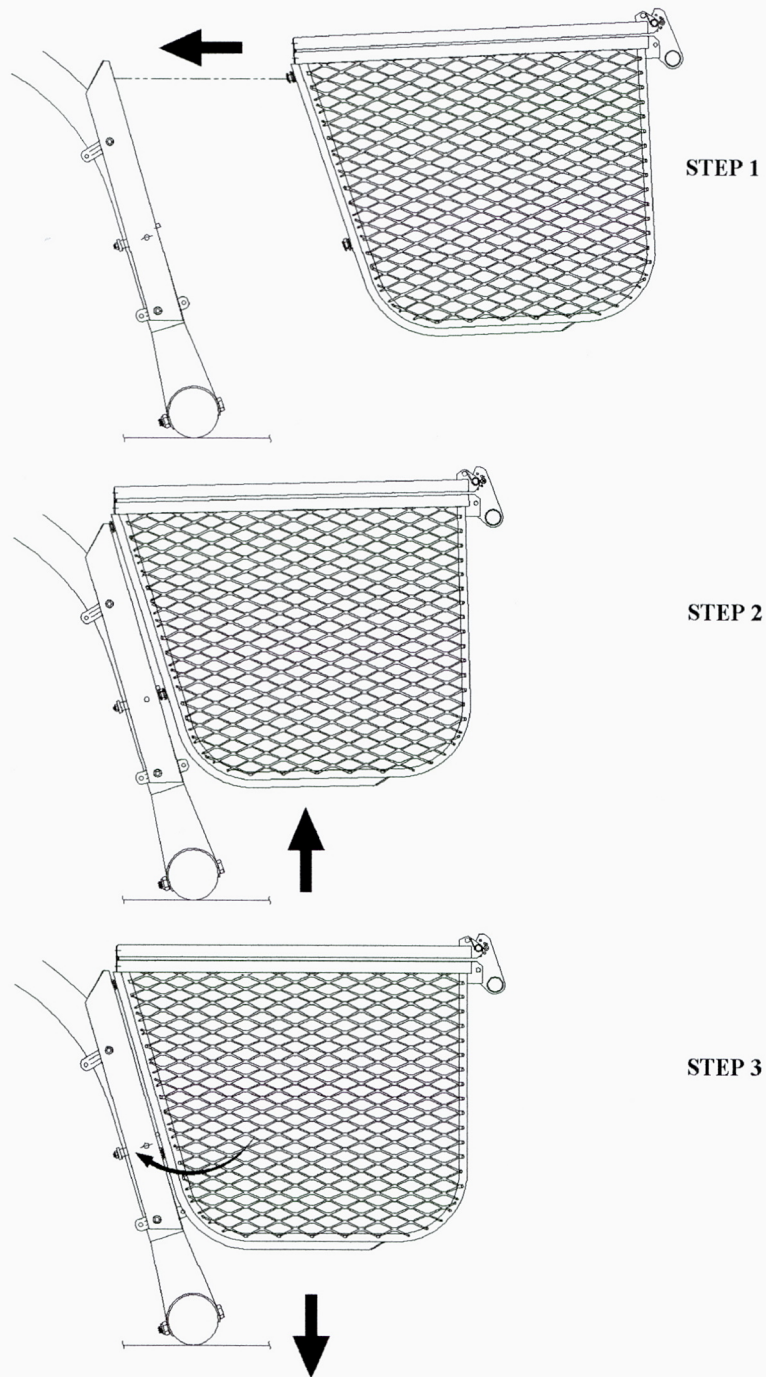


Figure 25.16 – Basket Attachment Steps

25-5 BASKET REMOVAL

Refer to Figure 25.15 and Figure 25.16.

1. Pull knob at bottom end of forward beam and lift basket until attachment fittings are free of keyways on forward beam.
2. Rotate basket up until lower aft attachment fitting is free of keyway. Rest forward end of basket on floor.
3. Slide basket forward and raise basket until upper aft attachment fitting is free of keyway.

25-6 HANDLE BRACKET REPLACEMENT

Refer to Figure 25.4.

- a. Remove two (2) AN3-11A Bolts, NAS1149F0363P Washers and MS21044N3 Nuts from each Handle Bracket (84267-01). Remove handle brackets from basket hoops.
- b. Slide two (2) replacement Handle Brackets (84267-01) onto basket hoops. Align Handle Bracket to bushings in hoop. Insert two (2) AN3-11A Bolts with NAS1149F0363P Washers through Handle Bracket and bushing. Install NAS1149F0363P Washer and MS21044N3 Nut on each bolt. Torque nuts to 20-25 in-lbs (2.3-2.8 N-m).

25-7 HANDLE SPRING REPLACEMENT

Refer to Figure 25.4.

- a. Remove two (2) AN3-12A Bolts, NAS1149F0363P Washers (2) and MS21044N3 Nuts attaching handle to lid. Remove handle from basket. Remove springs from handle.
- b. Slide replacement 36278-01R and 36278-01L Springs onto handle. Spring arm will catch on hook when on the correct side. Insert two 36275-01 bushings into handle attachments. Locate handle on basket, and insert two (2) AN3-12A Bolts with NAS1149F0363P Washers through bracket on lid and bushing in handle. Install NAS1149F0363P Washer and MS21044N3 Nut on each bolt. Torque nuts to 20-25 in-lbs (2.3-2.8 N-m). Lift spring arm over catch on handle and bar on lid bracket.

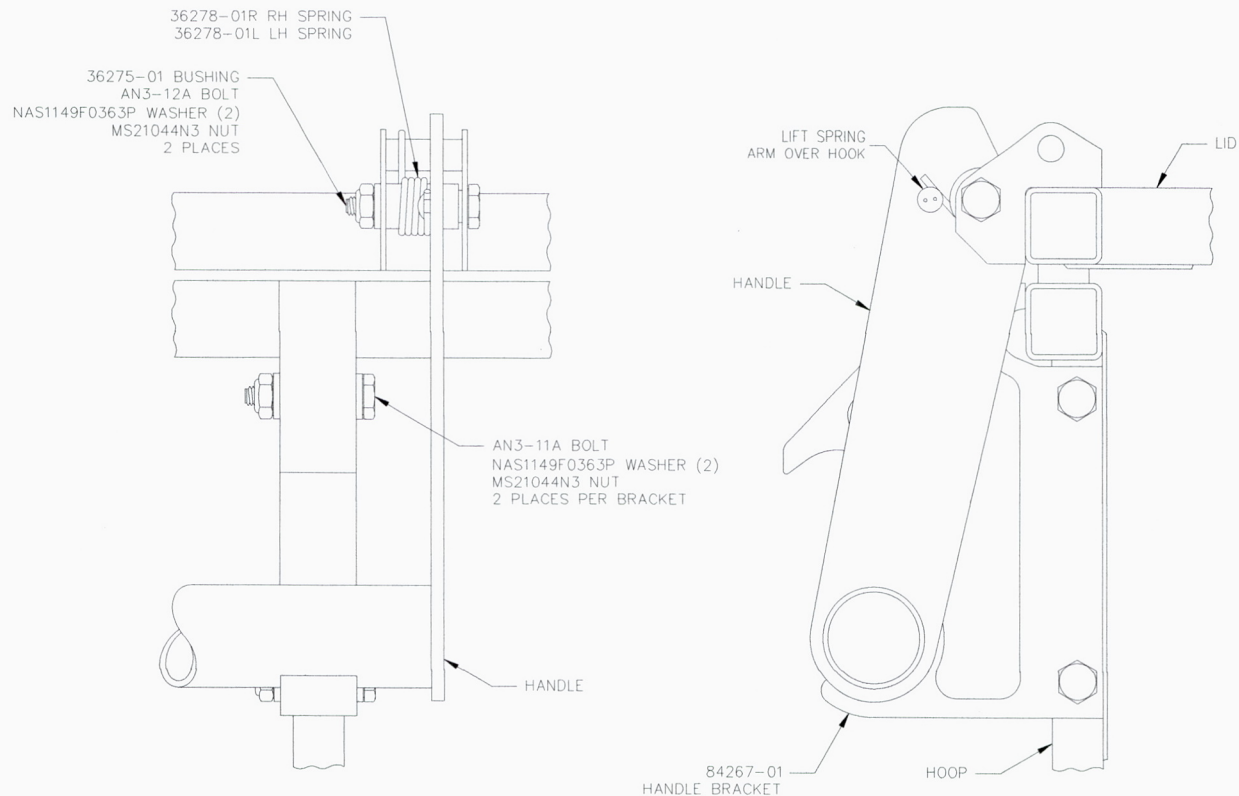


Figure 25.4 – Handle Bracket Parts

25-8 LID PROP REPLACEMENT

- Remove AN3-15A and AN3-17A Bolts, NAS1149F0363P Washers (3), AN970-3 Washers (2) and MS21044N3 Nuts attaching lid prop to basket assembly. Remove lid prop from basket
- Locate replacement 36280-01 Lid Prop on bushings at forward end of basket and lid.
- Insert AN970-3 Washer into lid end of prop, and slide AN3-15A Bolt with NAS1149F0363P Washer through bushing in lid. Install NAS1149F0363P Washer and MS21044N3 Nut on bolt.
- Slide AN3-17A Bolt with AN970-3 Washer through bushing in basket. Install NAS1149F0363P Washer and MS21044N3 Nut on bolt.
- Ensure lid prop is seated on bushings and torque nuts to 20-25 in-lbs (2.3-2.8 N-m).

25-9 QUICK RELEASE PIN SPRING REPLACEMENT

- Remove basket from mounting beams, refer to section 25-4.
- At lower attachment keyway on aft beam, remove MS21044C3 Nut from #10-32 stainless steel countersunk screw and remove 69830-13 Knob, 69830-12 Stop, and 69830-23 Spring. Discard defective Spring.

3. Place 69830-12 Stop on #10-32 stainless steel countersunk screw. Slide replacement 69830-23 Spring onto Stop. Insert screw/Stop/Spring into guide in lower keyway of aft beam. Install 69830-13 Knob and MS21044C3 Nut on inboard side of beam. Torque nut to 20-25 in-lbs (2.3-2.8 N-m).

25-10 BILL OF MATERIALS

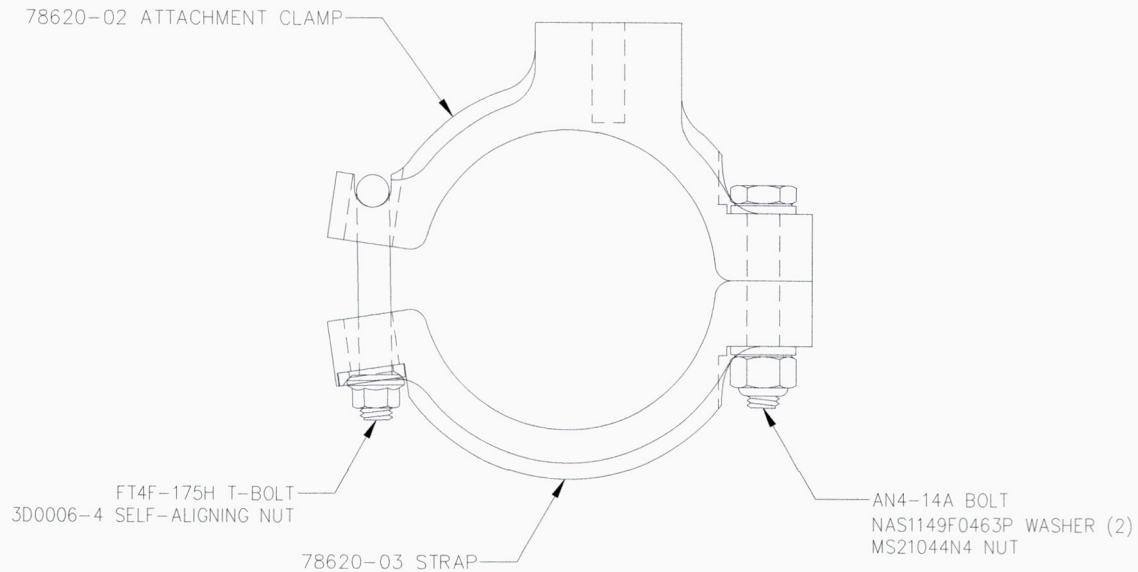


Figure 25.17 – Clamp Assembly

CLAMP ASSEMBLY (Standard)

Qty.	Part Number	Description
	78620-01	Clamp Assembly
. 1	78620-02	Attachment Clamp (with mounting pad)
. 1	78620-03	Strap (no mounting pad)
. 1	AN4-14A	Bolt
. 2	NAS1149F0463P	Washer
. 1	MS21044N4	Nut
. 1	FT4F-175H	T-Bolt
. 1	3D0006-4	Self Aligning Nut

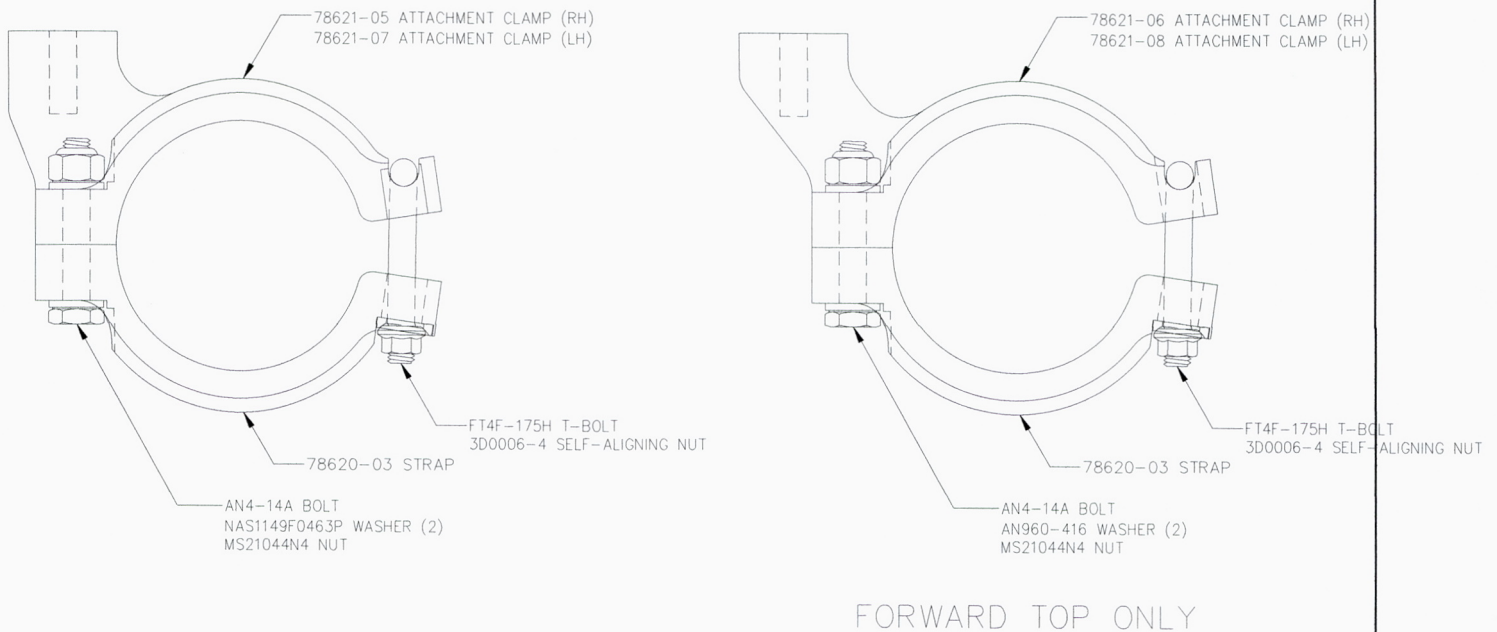


Figure 25.18 – Eurocopter Pod Compatible Clamps
(Right Hand shown, Left Hand opposite)

CLAMP ASSEMBLY (Eurocopter Pod Compatible)

Qty.	Part Number	Description
	78621-01	Right Hand Clamp Assembly
. 1	78621-05	Attachment Clamp
	78621-02	Right Hand, Forward Top, Clamp Assembly
. 1	78621-06	Attachment Clamp
	78621-03	Left Hand Clamp Assembly
. 1	78621-07	Attachment Clamp
	78621-04	Left Hand, Forward Top Clamp Assembly
. 1	78621-08	Attachment Clamp
. 1	78620-03	Strap (no mounting pad)
. 1	AN4-14A	Bolt
. 2	NAS1149F0463P	Washer
. 1	MS21044N4	Nut
. 1	FT4F-175H	T-Bolt
. 1	3D0006-4	Self Aligning Nut

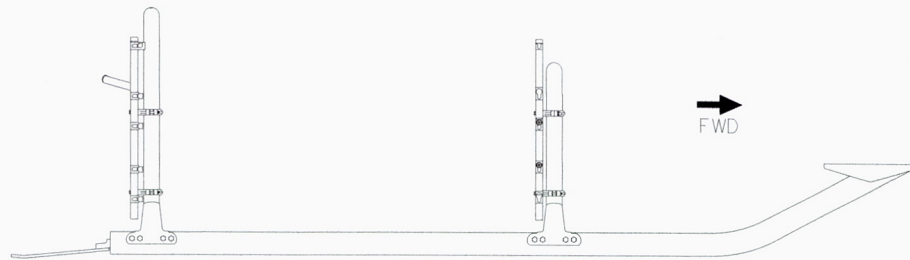
PROVISIONS INSTALLATION**LOW CONFIGURATION**

Figure 25.19 – Low Mounted Provisions Installation

Qty.	Part Number	Description
1	78602-01-01	Provisions Installation- RH Low
1	78602-01-02	Provisions Installation- LH Low
. 4	78620-01	Clamp Assembly
. 1	78633-01-01	Aft Beam Assembly (RH)
. 1	78633-01-02	Aft Beam Assembly (LH)
. 1	78634-01-00	Forward Beam Assembly
. 4	AN4-14A	Bolt
. 4	NAS1149F0463P	Washer
. A/R	--	Commercial Stainless Steel Fender Washer

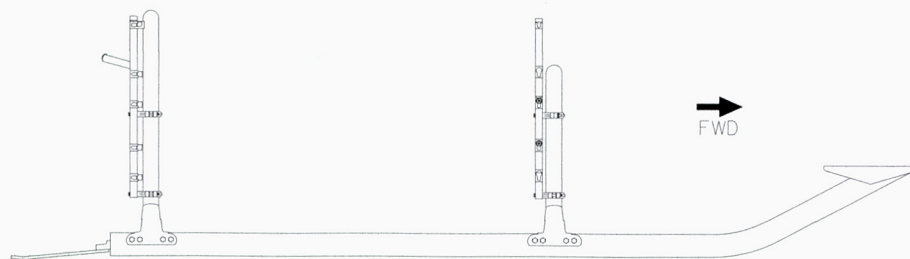
HIGH CONFIGURATION

Figure 25.20 – High Mounted Provisions Installation

Qty.	Part Number	Description
1	78602-02-01	Provisions Installation – RH High
1	78602-02-02	Provisions Installation – LH High
. 4	78620-01	Clamp Assembly
. 1	78633-01-01	Aft Beam Assembly (RH)
. 1	78633-01-02	Aft Beam Assembly (LH)
. 1	78634-01-00	Forward Beam Assembly
. 4	AN4-14A	Bolt
. 4	NAS1149F0463P	Washer
. A/R	--	Commercial Stainless Steel Fender Washer

CARGO POD COMPATIBLE CONFIGURATION

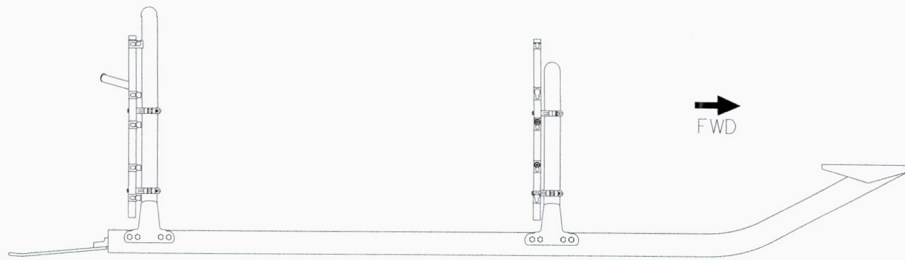


Figure 25.21 – Eurocopter Pod Compatible Provisions Installation

Qty.	Part Number	Description
1	78603-01-01	Provisions Installation – RH Eurocopter Pod Compatible
1	78603-01-02	Provisions Installation – LH Eurocopter Pod Compatible
. 3	78621-01	Clamp Assembly (RH)
. 3	78621-03	Clamp Assembly (LH)
. 1	78621-02	Clamp Assembly (RH – Forward Top)
. 1	78621-04	Clamp Assembly (LH – Forward Top)
. 1	78633-01-01	Aft Beam Assembly (RH)
. 1	78633-01-02	Aft Beam Assembly (LH)
. 1	78634-01-00	Forward Beam Assembly
. 4	AN4-14A	Bolt
. 4	NAS1149F0463P	Washer
. A/R	--	Commercial Stainless Steel Fender Washer

SHORT BASKET - MODEL 776

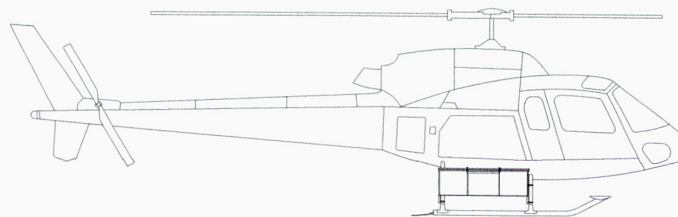


Figure 25.22 – Quick Release Cargo Basket Configuration 77601 (Short Basket)

Qty.	Part Number	Description
1	77601-01-XX	Low Short Basket Installation
. 1	78602-01-XX	Low Provisions Installation
. 1	77610-01	Short Basket Assembly
1	77601-02-XX	High Short Basket Installation
. 1	78602-02-XX	High Provisions Installation
. 1	77610-01	Short Basket Assembly
1	77601-03-XX	Eurocopter Pod Compatible Short Basket Installation
. 1	78603-01-XX	Eurocopter Pod Compatible Provisions Installation
. 1	77610-01	Short Basket Assembly

Note: -XX indicates side. Right side -01, left side -02

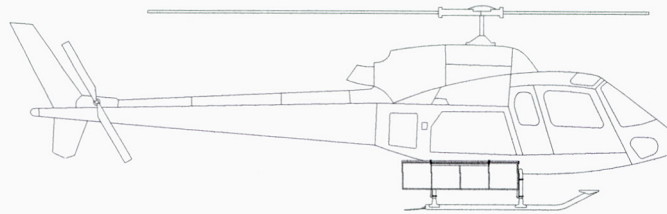
MEDIUM BASKET - MODEL 764

Figure 25.23 – Quick Release Cargo Basket Configuration 76401 (Medium Basket)

Qty.	Part Number	Description
1	76401-01-XX	Low Medium Basket Installation
. 1	78602-01-XX	Low Provisions Installation
. 1	76410-01-XX	Medium Basket Assembly
1	76401-02-XX	High Medium Basket Installation
. 1	78602-02-XX	High Provisions Installation
. 1	76410-01-XX	Medium Basket Assembly
1	76401-03-XX	Eurocopter Pod Compatible Medium Basket Installation
. 1	78603-01-XX	Eurocopter Pod Compatible Provisions Installation
. 1	76410-01-XX	Medium Basket Assembly

Note: -XX indicates side. Right side -01, left side -02

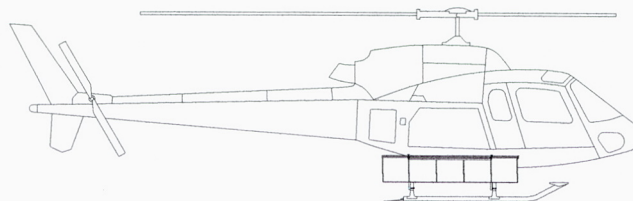
LONG BASKET - MODEL 78401

Figure 25.24 – Quick Release Cargo Basket: Configuration 78401 (Long Basket)

Qty.	Part Number	Description
1	78401-01-XX	Low Long Basket Installation
. 1	78602-01-XX	Low Provisions Installation
. 1	78410-01	Long Basket Assembly
1	78401-02-XX	High Long Basket Installation
. 1	78602-02-XX	High Provisions Installation
. 1	78410-01	Long Basket Assembly
1	78401-03-XX	Eurocopter Pod Compatible Long Basket Installation
. 1	78603-01-XX	Eurocopter Pod Compatible Provisions Installation
. 1	78410-01	Long Basket Assembly

Note: -XX indicates side. Right side -01, left side -02

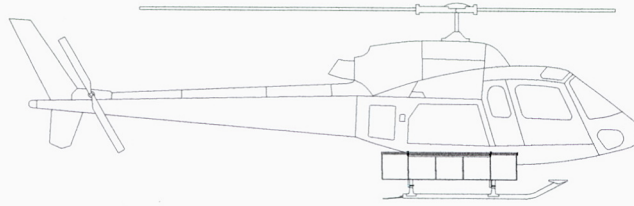
EXTRA-LONG BASKET - MODEL 94001

Figure 25.24 – Quick Release Cargo Basket: Configuration 94001 (Extra-Long Basket)

Qty.	Part Number	Description
1	94001-01-XX	Low Extra-Long Basket Installation
. 1	78602-01-XX	Low Provisions Installation
. 1	94010-01	Extra-Long Basket Assembly
1	94001-02-XX	High Extra-Long Basket Installation
. 1	78602-02-XX	High Provisions Installation
. 1	94010-01	Extra-Long Basket Assembly
1	94001-03-XX	Eurocopter Pod Compatible Extra-Long Basket Installation
. 1	78603-01-XX	Eurocopter Pod Compatible Provisions Installation
. 1	94010-01	Extra-Long Basket Assembly

Note: -XX indicates side. Right side -01, left side -02

25-11 WEIGHT AND BALANCE

This section contains weight and balance information for cargo basket models 764, 776, 784 and 940, and the universal attachment provisions 786. Each cargo basket model has multiple configurations. Refer to the weight and balance information applicable to basket model and configuration installed.

Determine the appropriate mounting position (Low, High, or Eurocopter Pod Compatible) and length (Short, Medium, or Long), then locate the configuration on Table 25.1.

Two weight and balance configurations are required: Attachment Provisions only; and Basket Installed. The basket configurations INCLUDE the provisions.

Configuration		Standard Units						Metric Units				
		Weight	Longitudinal Arm	Moment	Lateral Arm	Moment		Weight	Longitudinal Arm	Moment	Lateral Arm	Moment
		lb	in	in-lb	in	in-lb		kg	mm	mm-kg	mm	mm-kg
Mounting Provisions Installation	Part Number											
<i>Right Hand</i>												
Low	78602-01-01	6.4	135.6	867.5	37.2	238.0		2.9	3443.0	9970.6	944.6	2735.4
High	78602-02-01	6.4	135.6	867.5	36.5	233.8		2.9	3443.0	9970.6	928.1	2687.6
Eurocopter Pod Compatible	78603-01-01	6.8	135.4	921.0	38.8	263.6		3.1	3440.1	10584.8	984.6	3029.6
<i>Left Hand</i>												
Low	78602-01-02	6.4	135.6	867.5	-37.2	-238.0		2.9	3443.0	9970.6	-944.6	-2735.4
High	78602-02-02	6.4	135.6	867.5	-36.5	-233.8		2.9	3443.0	9970.6	-928.1	-2687.6
Eurocopter Pod Compatible	78603-01-02	6.8	135.4	921.0	-38.8	-263.6		3.1	3440.1	10584.8	-984.6	-3029.6

Table 25.1 – Weight and Balance

Configuration		Standard Units						Metric Units				
		Weight lb	Longitudinal Arm Moment in in-lb		Lateral Arm Moment in in-lb			Weight kg	Longitudinal Arm Moment mm mm-kg		Lateral Arm Moment mm mm-kg	
Short Basket Installation												
<i>Right Hand</i>												
Low	77601-01-01	41.4	135.9	5627.5	45.9	1900.5		18.7	3452.6	64678.3	1166.0	21842.9
High	77601-02-01	41.4	135.9	5627.5	45.1	1868.3		18.7	3452.6	64678.3	1146.3	21473.2
Eurocopter Pod Compatible	77601-03-01	41.8	135.9	5681.0	47.8	1996.1		18.9	3452.1	65292.5	1212.9	22941.6
<i>Left Hand</i>												
Low	77601-01-02	41.4	135.9	5627.5	-45.9	-1900.5		18.7	3452.6	64678.3	-1166.0	-21842.9
High	77601-02-02	41.4	135.9	5627.5	-45.1	-1868.3		18.7	3452.6	64678.3	-1146.3	-21473.2
Eurocopter Pod Compatible	77601-03-02	41.8	135.9	5681.0	-47.8	1996.1		18.9	3452.1	65292.5	-1212.9	-22941.6
Medium Basket Installation												
<i>Right Hand</i>												
Low	76401-01-01	51.4	144.0	7401.5	46.7	2402.5		23.3	3657.6	85067.2	1187.2	27612.4
High	76401-02-01	51.4	144.0	7401.5	46.0	2362.3		23.3	3657.6	85067.2	1167.4	27150.9
Eurocopter Pod Compatible	76401-03-01	51.8	143.9	7455.0	48.6	2518.1		23.4	3655.5	85681.4	1234.7	28941.1
<i>Left Hand</i>												
Low	76401-01-02	51.4	144.0	7401.5	-46.7	-2402.5		23.3	3657.6	85067.2	-1187.2	-27612.4
High	76401-02-02	51.4	144.0	7401.6	-46.0	-2362.3		23.3	3657.6	85067.2	-1167.4	-27150.9
Eurocopter Pod Compatible	76401-03-02	51.8	143.9	7455.0	-48.6	-2518.1		23.4	3655.5	85681.4	-1234.7	-28941.1

Configuration		Standard Units						Metric Units				
		Weight	Longitudinal		Lateral			Weight	Longitudinal		Lateral	
			Arm	Moment	Arm	Moment			Arm	Moment	Arm	Moment
		lb	in	in-lb	in	in-lb		kg	mm	mm-kg	mm	mm-kg
Long Basket Installation												
<i>Right Hand</i>												
Low	78401-01-01	63.9	136.0	8687.5	47.4	3026.8		28.9	3453.3	99847.5	1203.1	34787.1
High	78401-02-01	63.9	136.0	8687.5	46.6	2976.6		28.9	3453.3	99847.5	1183.2	34210.6
Eurocopter Pod Compatible	78401-03-01	64.3	135.9	8741.0	49.3	3167.4		29.1	3452.9	100461.7	1251.2	36403.0
<i>Left Hand</i>												
Low	78401-01-02	63.9	136.0	8687.5	-47.4	-3026.8		28.9	3453.3	99847.5	-1203.1	-34787.1
High	78401-02-02	63.9	136.0	8687.5	-46.6	-2976.6		28.9	3453.3	99847.5	-1183.2	-34210.6
Eurocopter Pod Compatible	78401-03-02	64.3	135.9	8741.0	-49.3	-3167.4		29.1	3452.9	100461.7	-1251.2	-36403.0
Extra-Long Basket Installation												
<i>Right Hand</i>												
Low	94001-01-01	71.2	136.0	9680.3	48.2	3432.6		32.2	3453.4	111258.0	1224.6	39452.1
High	94001-02-01	71.2	136.0	9680.3	47.5	3383.1		32.2	3453.4	111258.0	1206.9	38882.9
Eurocopter Pod Compatible	94001-03-01	71.6	135.9	9733.8	50.2	3594.3		32.4	3453.0	111872.2	1275.1	41310.3
<i>Left Hand</i>												
Low	94001-01-02	71.2	136.0	9680.3	-48.2	-3432.6		32.2	3453.4	111258.0	-1224.6	-39452.1
High	94001-02-02	71.2	136.0	9680.3	-47.5	-3383.1		32.2	3453.4	111258.0	-1206.9	-38882.9
Eurocopter Pod Compatible	94001-03-02	71.6	135.9	9733.8	-50.2	-3594.3		32.4	3453.0	111872.2	-1275.1	-41310.3

Table 25.1 – Weight and Balance (continued)

OPTIONS: If the basket includes any of the following options, include these corrections to the weight and balance data.

Standard Units

P/N	Description	Weight	Longitudinal		Lateral	
		lb	arm in	moment in-lb	arm in	moment in-lb
70406-01	Front End Cutout	-0.3	107.8	-32.3	*	*
70405-01	Lid Step (Short Basket)	4.0	136.0	544.0	*	*
70405-01	Lid Step (Medium Basket)	5.8	145.2	842.2	*	*
70405-01	Lid Step (Long Basket)	6.7	136.0	1047.2	*	*
70405-01	Lid Step (Extra-Long Basket model 940)	7.4	136.0	1047.2	*	*
70408-01	Hangar Wheel (Short/Medium Basket)	0.8	110.0	88.0	*	*
70408-01	Hangar Wheel (Lng/Extra-long Basket)	0.8	92.0	73.6	*	*

Metric Units

P/N	Description	Weight	Longitudinal		Lateral	
		kg	arm mm	Moment mm-kg	arm mm	moment mm-kg
70406-01	Front End Cutout	-0.1	2730.5	-273.1	*	*
70405-01	Lid Step (Short Basket)	1.8	3453.3	6215.9	*	*
70405-01	Lid Step (Medium Basket)	2.6	3688.1	9589.1	*	*
70405-01	Lid Step (Long Basket)	3.0	3454.0	10362.0	*	*
70405-01	Lid Step (Extra-Long Basket model 940)	3.4	3454.4	11744.9	*	*
70408-01	Hangar Wheel (Short/Medium Basket)	0.4	2794.0	1117.6	*	*
70408-01	Hangar Wheel (Long/Extra-long Basket)	0.4	2336.8	934.7	*	*

Table 25.2 – Options Weight and Balance

*Note: Lateral arm is the same as the basket configuration. Lateral moment is calculated with the lateral arm.

25-12 STRUCTURAL FASTENER DATA

Refer to Eurocopter Standard Practices Manual for torque values not listed in this ICA.



Transport
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20 October 2014

Aero Design Ltd.
9888A Malaspina Road
Powell River, British Columbia
Canada V8A 0G3

Our file

C-14-0837

SH08-16 Issue #5

Attention: Mr. Jeff Clarke

Subject: **Installation of External Attachment Provisions & Cargo Basket Documentation Signed by TCCA & Returned SH08-16, Issue #5**

Dear Sir:

Please find enclosed the following:

- DCL764-1 Rev. #4
- DCL764-3 Rev. #4
- DCL776-1 Rev. #4
- DCL776-3 Rev. #3
- DCL784-1 Rev. #4
- DCL784-3 Rev. #4
- DCL786-1 Rev. #4
- DCL786-3 Rev. #4
- DCL940-1 Rev. #1
- DCL940-3 Rev. #1
- DCL704 Rev. #9
- Rotorcraft #FMS764.91 Rev. #4 dated 16 July 2014
- ICA 764.90 Rev. #6 dated 15 July 2014
- MSI 53 signed by TCCA 8 September 2014
- CP940, Rev. #1 dated 5 July 2014

Yours truly,

Kim Davis
Technical Support Clerk, Engineering
Prairie and Northern Region
Phone: 780-495-3850
Enclosures

Canada

www.tc.gc.ca

CERTIFICATION PLAN

CP940

AIRBUS HELICOPTERS (EUROCOPTER)

AS350 SERIES & AS355 SERIES

EXTERNAL CARGO BASKET

REVISION TO UPDATE HOLDER

Prepared by: Jeff Clarke, P.Tech.(Eng.)

Revision 1, 05 July 2014

(replaces Compliance Program CP940, Rev. 0 for Extra Large Basket Configuration)

(replaces Compliance Program CP764, Rev. 0 for all other Basket Configurations)

Aero Design Ltd.



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1.0 INTRODUCTION

This certification plan details the means and methods of compliance for the Airworthiness Requirements shown on the Compliance Program (Appendix A). This document replaces the original Compliance Programs, CP764 Rev. 0 and CP940 Rev. 0, which are identical.

This reissue of approval SH08-16 to issue 5 is to update the holder address and incorporate minor design changes into the approval.

Application for an EASA STC and amendment to FAA STC SR02680NY will follow reissue of the Canadian approval.

2.0 PROJECT DESCRIPTION

Installation of quick release mounting provisions on the landing gear cross tubes. The provisions consist of a pair of stainless steel mounting beams attached with aluminum clamps to the landing gear cross tubes.

Installation of a cargo basket on the mounting provisions. The cargo basket uses the same construction and attachment means as other approved Aero Design Ltd. baskets. There are 4 different sizes, ranging from 56" to 96".

3.0 BASIS OF CERTIFICATION

Airbus Helicopters (formerly Eurocopter) AS350 B, B1, B2, B3, BA, D, TCDS H-83, Issue 22:
AS350 B3 (highest of all AS350 models):

FAR 27 effective 1 February 1965 including amendments 27-1 through 27-10.

Plus TCCA Additional Airworthiness Requirement as published in Airworthiness Manual Chapter 527 (Normal Category Rotorcraft) Change 3 dated January 3, 1994:

- a) 527.1093(b)(1)(ii) and (iii) -Induction System Icing Protection.
- b) 527.1301.1 -Rotorcraft Operations After ground Cold Soak.
- c) 527.1557(c)(3) -Miscellaneous Markings and Placards.
- d) 527.1581(e),(f) Rotorcraft Flight Manual
- e) 527.1583(h) -Ambient Temperature Limitation

Eurocopter AS355 E, F, F1, F2, N, NP, TCDS H-87, Issue 9:
AS355NP (highest of all AS355 models):

FAR 27 Amendment 20, dated March 26, 1984, (such as modified by CTC 27) plus the following paragraphs of Amendment 21, dated December 6, 1984:

27.21, 27.45, 27.71, 27.79, 27.143, 27.151, 27.161, 27.173, 27.175, 27.177, 27.672, 27.673, 27.729, 27.735, 27.779, 27.807, 27.1329, 27.1413, 27.1519, 27.1525, 27.1555, 27.1585, 27.1587;

Plus FAR 27 amendment 23, paragraph 27.923.

Additional Airworthiness Requirements (AARs) Canadian Airworthiness Manual, Chapter 527 (Normal Category Rotorcraft):

- a) 527.1093(b)(1)(ii) and (iii) Induction System Icing Protection
- b) 527.1301-1 Rotorcraft Operations After Ground Cold Soak
- c) 527.1557(c) (3) Miscellaneous Markings and Placards
- d) 527.1583(h) Ambient Temperature Limitation

4.0 APPLICABILITY OF AIRWORTHINESS DIRECTIVES

Airworthiness Directives applicable to the Eurocopter AS350 and AS355 (all models) were reviewed on 05 July 2014, and none were found to affect this project.

5.0 PERSONNEL

Applicant: Aero Design Ltd. – Jeff Clarke, P.Tech.(Eng.)

Delegate: None – no changes to findings of compliance, see section 6.0 and 7.0

Transport Canada: Jack Staal, PNR Region

6.0 CERTIFICATION PLAN

Re-issue of the approval is to reflect the change of address of the holder. Minor changes to the approved drawings are also incorporated at this issue. Evaluation of the changes is addressed in Section 7.0. There are no changes to the design data that invalidate the existing findings of compliance.

6.1 FAR 27 Subpart G – Operating Limitations and Information

Paragraphs 27.1505, .1525, .1581, .1583, .1585, .1587, .1589

6.1.1 Means of Compliance

a) Test

6.1.2 Method of Compliance

a) TCCA Flight Test

6.1.3 Compliance Documents, Data and Testing

Flight Test Reports – prepared by TCCA Test Pilot Michel Brulotte – contains performance information (existing)

Flight Manual Supplement FMS764.91 to Revision 4 – revision to update approval numbers on cover and contact information; change “Eurocopter Pod” to “Cargo Pod” in weight and balance. The existing approved sections are not changed.

6.1.4 Schedule

FMS764.91 revision 4 - submit to TC for review by 25 July 2014.

6.1.5 Level of Delegation

None

6.1.6 Level of Involvement / Service

Deliverable	Transport Canada Service
FMS764.91 Rev. 4	Requires Transport Canada review and approval

6.2 FAR 27.1529

6.2.1 Means of Compliance

a) Instructions for Continued Airworthiness provided

6.2.2 Method of Compliance

a) Instructions for Continued Airworthiness are prepared in accordance with FAR 27 Appendix A

6.2.3 Compliance Documents, Data and Testing

Instructions for Continued Airworthiness ICA764.90 to Revision 6.

Changes from TCCA accepted Revision 5:

1. Cover: Contact information updated, DCL revisions, add EASA STC line
2. Section 0-3: Contact information updated
3. Section 0-4: Add compatibility note regarding floats
4. Section 4: Add EASA limitation statement
5. Section 5-1: Add inspections and reference for instructions for stop pin, handle brackets, handle springs, and lid prop.
6. Section 5-2: Add damage limits and additional repair instructions.
7. Section 5-3: Remove colour references (all were white).
8. Section 11: Add updated placards; corrected original placard weight limits for 764 and 784 baskets (was 300 lbs, should be 250 lbs)
9. Section 25: Update hardware part numbers (AN960 to NAS1149 etc.); metric torque specs added; add replacement instructions for stop pin, handle brackets, handle springs, and lid prop; change "Eurocopter Pod" to "Cargo Pod" in bill of materials and weight and balance

Note: Revision 4 is referenced on issue 4 of the STC. Revision 5 corrected the FAA limitation statement in section 4 (FAR 29 statement was used, corrected to FAR 27 statement). Revision 5 was accepted by TCCA on 3 Aug 2012 (C-12-0016).

6.2.4 Schedule

ICA764.90 Revision 6 – submit to TC for review by 25 July 2014.

6.2.5 Level of Delegation

None

6.2.6 Level of Involvement / Service

Deliverable	Transport Canada Service
ICA764.90 Rev. 6	Requires Transport Canada review and acceptance

7.0 EFFECT OF CHANGES ON EXISTING FINDINGS OF COMPLIANCE

All documents - excluding engineering reports, load test reports, flight test reports or similar documents - are revised to incorporate the new company contact information and logo, which does not affect any finding of compliance. Changes beyond the address and logo are addressed below. A list of all changed documents is in Appendix B.

7.1 General

FMS764.91 to Revision 4 addressed in section 6.0 above. Requires TCCA approval.

ICA764.90 to Revision 6 addressed in section 6.0 above. Requires TCCA acceptance.

The following changes are made on a number of drawings as indicated on the drawing:

Change: Metric units added.

Reason: Standard units in the existing manuals are in metric.

Effect: None.

Change: Hardware part numbers updated to current (e.g. AN960 Washer part numbers updated to NAS1149).

Reason: Update to current part numbers.

Effect: None.

Change: HuckMax rivets added as alternative to CherryMax rivets.

Reason: HuckMax rivets provide better forming of the rivet tail.

Effect: None. Both fasteners meet the requirements of NAS9301.

Change: Drawing formatting and styles.

Reason: Some drawings did not conform to Aero Design standard format and styles. These drawings are edited to conform to Aero Design drawing standards.

Effect: None. No changes to drawing content.

7.2 Document Control List DCL786-1 to Revision 4 – Attachment Provisions Installation

7.2.1 Drawing 78602 to Revision 1 – Attachment Provisions Installation

Change: Note 5 line 3 modified to read “other” side baggage compartment extenders instead of “Eurocopter”.

Reason: Eurocopter Canada has been renamed to Airbus Helicopters Canada, change allows for possibility of other manufacturers in other markets.

Effect: None.

7.2.2 Drawing 78603 to Revision 1 – Attachment Provisions Installation, Cargo Pod Compatible Configuration

Change: Note 5 line 1 modified to read “may be required” if modified with a side baggage compartment extender.

Note 5 line 4 added: “This configuration is optional for installation of the extra large cargo basket (installation 94001-03-XX).

Reason: Side compartment extenders interfere with opening the basket lid. The modified configuration allows the basket lid to clear the compartment extenders by moving the attachment provisions 2” outboard. The extra large basket lid is hinged 3” outboard of the other baskets (at the same height), therefore it is not necessary to move the extra large basket outboard. Some operators interchange the extra large basket with smaller ones, so the configuration must be available for all baskets.

Effect: None.

7.3 Document Control List DCL786-3 to Revision 4 – Attachment Provisions Assembly

7.3.1 Drawing 78620 to Revision 4 – Attachment Fittings

Change: Alternate finish of hard anodizing per MIL-A-8625F added.

Reason: Hard anodizing provides for better resistance to mechanical damage than paint, which in turn provides for better corrosion resistance.

Effect: The part has improved corrosion resistance properties over the approved configuration.

7.3.2 Drawing 78621 to Revision 1 – Pod Compatible Attachment Fittings

Change: Alternate finish of hard anodizing per MIL-A-8625F added.

Reason: Hard anodizing provides for better resistance to mechanical damage than paint, which in turn provides for better corrosion resistance.

Effect: The part has improved corrosion resistance properties over the approved configuration.

7.3.3 Drawing 78633 to Revision 1 – Aft Mounting Beam

Change: Web added across slot in upper guide (item 04).

Reason: The web increases the contact area for welding the hook to the beam.

Effect: Strength increased over approved configuration. Weight change is negligible.

Change: Material for cap (item 06 and 09) changed from 0.025” 321 stainless steel to 0.050” 304 stainless steel.

Reason: Increased thickness is easier to weld to the heavier wall of the tubing (0.063”). 304 material is easier to procure than 321.

Effect: Caps are non-structural. Weight change is negligible.

Change: Material for stop bracket (item 05) changed from $\frac{3}{4}$ " x 0.065" to $\frac{3}{4}$ " x 0.035" 304 stainless steel.

Reason: Heavy material not required for function (to guide attachment lugs into slots). Lighter material does not require as much heat and filler rod during welding, reducing warping over the length of the beam.

Effect: Stop brackets are non-structural. Weight change is negligible.

Change: Slot depth increased from 0.070" to 0.080". Cutout down wall of tube increased from 0.22" to 0.26"

Reason: Tolerance in the wall thickness of the tube and deflection of the wall while machining sometimes prevented cutting through to the inside wall of the tube, leaving a thin foil that must be cleaned up manually. Change ensures cutting through.

The original tolerance of the cutout allowed for possible interference on installation of the mounting stud on the basket, which was encountered in a few instances requiring manual filing to clear the slot. The change makes the cutout slightly deeper (from 0.22" to 0.260") and reduces the allowable tolerance (from 0.03" to 0.010") to prevent possible interference.

Effect: No reduction in strength due to increased slot depth as the guide pad is welded into the slot. No reduction in strength due to the cutout as the open slot in the guide pad does not allow load transfer on that side of the tube. Weight change is negligible.

Change: Step tube wall thickness increased from 0.035 to 0.065

Reason: One operator noted minor deflection of the step and wrinkling of the bottom surface of the step tube after 5 years in service. The operator also noted that the step length is too short to allow winter work boots to fit between the beam and cap, so the cap is generally wedged into the boot tread in service, meaning the load is applied at the end of the step and not the middle as expected. To prevent deformation of the step tube the wall thickness is increased.

Effect: Strength is increased over original configuration. Weight change is negligible.

Change: Alternate paint finish added.

Reason: Some operators require custom colours that are not cost effective to be powder coated.

Effect: Parts are stainless steel, finish is primarily cosmetic.

Change: Grip paint on step changed to adhesive grip tape.

Reason: Simplifies application, removes handling of hazardous chemicals to apply paint.

Effect: None. Same grip tape is used on approved cabin steps (STC SH09-38)

7.3.4 Drawing 78634 to Revision 1 – Forward Mounting Beam

Change: Pads (item 11 and 12) added.

Reason: Previous drawing had 3 parts with different dimensions with same part number (78634-03).

Effect: None.

- Change: Length of pad (item 12, previously item 3, see above) increased from 1.69" to 1.81".
- Reason: Stop block (item 06) is welded over keyway in pad. The weld at the top of the pad into the tube removes some of the material where the stop block sits, which no longer provides a flat surface. The change increases the length of the pad to provide a flat surface for the stop block.
- Effect: Added section is above wide diameter of keyway, it does not support the basket loads. Weight change is negligible.
-
- Change: Slot depth increased from 0.070" to 0.080".
- Reason: Tolerance in the wall thickness of the tube and deflection of the wall while machining sometimes prevents cutting through to the inside wall of the tube, leaving a thin foil that must be cleaned up manually. Change ensures cutting through.
- Effect: No reduction in strength, pads are welded into slots.
-
- Change: Material for cap (item 04) changed from 0.025" 321 stainless steel to 0.050" 304 stainless steel.
- Reason: Increased thickness is easier to weld to the heavier wall of the tubing (0.063"). 304 material is easier to procure than 321.
- Effect: Caps are non-structural. Weight change is negligible.
-
- Change: Alternate paint finish added.
- Reason: Some operators require custom colours that are not cost effective to be powder coated.
- Effect: Parts are stainless steel, finish is primarily cosmetic.

7.4 Document Control List DCLXXX-1 – Basket Installation

Document Control List DCL776-1 to Revision 4– Short Basket Installation
Document Control List DCL764-1 to Revision 4– Medium Basket Installation
Document Control List DCL784-1 to Revision 4– Long Basket Installation
Document Control List DCL940-1 to Revision 1– X Large Basket Installation

7.4.1 Drawing XXX01 – Basket Installation

Drawing 77601 to Revision 4 – Short Basket Installation
Drawing 76401 to Revision 4 – Medium Basket Installation
Drawing 78401 to Revision 4 – Long Basket Installation
Drawing 94001 to Revision 1 – X Large Basket Installation

- Change: Drawing reformatted to letter size sheets.
- Reason: Ease of use by installer.
- Effect: None.
-
- Change: Note 1 updated to reference attachment provisions drawing 78602 and 78603.
- Reason: Previous reference to 78601 no longer applicable.
- Effect: None.

Change: Note 4 updated to change reference to "Eurocopter Pod" to "Cargo Pod"
Reason: Eurocopter has changed to Airbus Helicopters, and revised note allows for possibility of other manufacturers in other markets.
Effect: None.

Change: Add note 5 regarding installation of lid prop on forward end of basket
Reason: Short, long and extra large baskets have provisions to install lid prop on both ends because basket can be installed on either side.
Effect: None.

Change: Add note 6 regarding front end cutout.
Reason: Short, long and extra large baskets can be installed on either side of the helicopter. The front end cutout must be positioned to the front to prevent possible loss of unsecured cargo in forward flight.
Effect: None.

7.5 Document Control List DCLXXX-3 – Basket Assembly

Document Control List DCL776-3 to Revision 3 – Short Basket Assembly
Document Control List DCL764-3 to Revision 4 – Medium Basket Assembly
Document Control List DCL784-3 to Revision 4 – Long Basket Assembly
Document Control List DCL940-3 to Revision 1 – X Large Basket Assembly

7.5.1 Drawing XXX10 – Basket Assembly

Drawing 77610 to Revision 2 – Short Basket Assembly
Drawing 76410 to Revision 3 – Medium Basket Assembly
Drawing 78410 to Revision 2 – Long Basket Assembly
Drawing 94010 to Revision 1 – X Large Basket Assembly

Change: Hinge lengths corrected.
Reason: Hinge must be cut to full inch lengths to be symmetrical to allow rivets to land on lug locations of hinge when drilled with jigs.
Effect: None.

Change: Lid prop assembly (part number 36280-01) changed to lid prop installation (part number 84240-01).
Reason: Fasteners for installing the lid prop were not specified on the original drawings. Installation of the lid prop is the same for all baskets, and this drawing can be supplied with replacement parts.
Effect: None.

7.5.2 Drawing XXX11 – Basket Body Fabrication

Drawing 77611 to Revision 2 – Short Basket Body Fabrication

Drawing 76411 to Revision 3 – Medium Basket Body Fabrication

Drawing 78411 to Revision 3 – Long Basket Body Fabrication

Drawing 94011 to Revision 1 – Extra Large Basket Body Fabrication

Change: Reference dimensions added.

Reason: Easier fabrication of components.

Effect: None.

Change: Stainless steel welding rod added to welding notes.

Reason: Lid prop lug material changed to stainless steel - see drawing 49215, Rev. 1.

Effect: None.

Change: Lid prop lug moved 1/16" farther inboard.

Reason: Standardization with other baskets.

Effect: None. Shift reduces lid opening slightly.

Change: 76411 and 78411 only: Cap (item 10) added.

Reason: Omitted on original drawings.

Effect: None. Closes top of 1" attachment hoops at intersection with 3/4" rim.

Change: 76411 only: Centre hoop shifted 1/4" to centre of basket.

Reason: Basket was not symmetrical to align with lid.

Effect: None.

Change: 94011 only: Welds down sides increased from 4 to 5.

Reason: Standardization with other baskets.

Effect: None. Load transfer into basket frame improved over original configuration.

7.5.3 Drawing XXX12 – Basket Lid Fabrication

Drawing 77612 to Revision 2 – Short Basket Lid Fabrication

Drawing 69812 to Revision 4 – Medium Basket Lid Fabrication

Drawing 78412 to Revision 2 – Long Basket Lid Fabrication

Drawing 94012 to Revision 1 – X Large Basket Lid Fabrication

Change: # of welds down braces increased from every 2nd intersection to first 5 then every 2nd intersection

Reason: Standardization with other baskets.

Effect: Better load transfer from mesh into frame over approved configuration.

Change: Stainless steel welding rod added to welding notes.
Reason: Approved configuration uses stainless steel for lid handle brackets. Lid prop lug material changed to stainless steel - see drawing 49216, Rev. 1.
Effect: None.

Change: Detail D added for placard bracket.
Reason: Bracket is installed below top surface of rim, depth was not provided.
Effect: None.

Change: 1/4" holes for lid bumpers added.
Reason: The holes were specified on the basket assembly drawings, but it is preferred to drill the holes before powder coating to allow the coating to protect the edge of the holes.
Effect: None.

7.5.4 Drawing 76423 to Revision 3 – Attachment Hoop Fabrication

Change: Provisions for handle in accordance with drawing 84262 added.
Reason: The handle provisions are shown on the basket fabrication drawings, but it is easier to install the provisions when the hoop is fabricated.
Effect: None.

Change: Studs (items 05 and 06) length increased
Reason: The original configuration had the studs sit flush on the inside of the far wall of the 1" tube, not through. Revision increases the length so studs extend through the tube to allow it to be welded on both sides.
Effect: Additional weld area allows for better load transfer into studs.

Change: Depth of slot in cap (item 04) increased, material thickness increased.
Reason: Cap extended slightly past edge of tube, leaving too much material for welding. Increased thickness is easier to weld to the heavier wall tube.
Effect: Cap is not structural, weight change is negligible.

7.5.5 Drawing 94023 to Revision 1 – Attachment Hoop Fabrication

Change: Provisions for handle in accordance with drawing 84262 added.
Reason: The provisions from drawing 84262 are already shown on the drawing, but were not referenced to drawing 84262. Handle provisions are common to all baskets, so any changes made to drawing 84262 must supersede those shown on this drawing.
Effect: None.

7.5.6 Drawing 77627 to Revision 1 – Placard

Drawing 77627 to Revision 1 – Placard

Drawing 76427 to Revision 2 – Placard

Drawing 78427 to Revision 2 – Placard

Drawing 94027 to Revision 1 – Placard

Change: Material thickness changed from 0.063" to 0.050"

Reason: Aero Design uses 0.050" 6061-T6 in many applications, but does not use 0.063" for anything else, so 0.050" is more readily available.

Effect: Part is not structural, weight change is negligible, thickness is sufficient for required engraving (0.007" deep)

7.6 Common Component Drawings

A number of drawings of components that are common to all cargo baskets were revised as part of updating STC SH10-48 to issue 2. The revised drawings are also part of this approval, and are not changed from approval SH10-48 issue 2.

7.7 Document Control List DCL704 to Revision 9 – Basket Modifications

Most of the drawings on DCL704 were recently updated at Revision 8 when STC SH10-48 (Robinson R44 Cargo Basket Installation) was reissued. The following drawings are changed at Revision 9.

7.7.1 Drawing 70406 to Revision 2 – Open Forward End Modification

Change: Additional configuration for long and extra large baskets which do not incorporate a strut in the forward end of the basket.

Reason: It was not expected the longer baskets would require a cutout to accommodate long items, but there has been demand for this configuration.

Effect: None.

APPENDIX A

COMPLIANCE PROGRAM

APPLICANT: Aero Design Ltd.
9888 A Malaspina Road
Powell River, BC, Canada
V8A 0G3

DATE: 0 20 October 2011 (Original)
REVISION No. 1 05 July 2014

CORRESPONDANCE TO:
(If other than applicant)

MAKE: Airbus Helicopters (Eurocopter)
MODEL: AS350 B, B1, B2, B3, BA, D; AS355 E, F, F1, F2, N, NP

REGISTRATION: All Eligible
SERIAL No.: All Eligible

NATURE OF WORK: External Attachment Provisions Installation; Quick Release Cargo Basket Installation



TYPE CERTIFICATE DATA SHEET: H-83 issue 22 / H-87 issue 9

MODEL CERTIFICATION BASIS: FAR 27 dated 1 February 1965, including amendments 27-1 thru 27-20 (AS355 NP basis, highest of all models)

MODIFICATION CERTIFICATION BASIS: FAR 27 dated 1 February 1965, including amendments 27-1 thru 27-20 (AS355 NP basis)

Airworthiness Requirement	Change from CP Rev. 0	Subject for Compliance or Documentary Proof	Form of Substantiation	DOT	DAR	Comments
Subpart B		Flight				
27.27	No	Centre of Gravity Limits	N/A			No Change from Type Approval
27.29	No	Empty Weight and Corresponding C of G	Data specified on inst'n drawing			
27.45	No	Performance - General	Flight Test			
27.51	No	Takeoff	Flight Test			
27.65	No	Climb: All Engines Operating	Flight Test			
27.71	No	Gliding Performance	Flight Test			
27.73	No	Performance at Min. Operating Speed	Flight Test			
27.75	No	Landing	Flight Test			
27.141	No	Flight Characteristics – General	Flight Test			Flight test in accordance with FTP764.03 and flight test performed by Transport Canada
27.143	No	Controllability and Maneuverability	Flight Test			
27.151	No	Flight controls	Flight Test			
27.161	No	Trim Control	Flight Test			Flight test in accordance with FTP940.03 and flight test performed by Transport Canada
27.171	No	Stability – General	Flight Test			
27.173	No	Longitudinal Stability	Flight Test			
27.175	No	Demonstration of Longitudinal Stability	Flight Test			
27.177	No	Static Directional Stability	Flight Test			
27.241	No	Ground Resonance	Flight Test			
27.251	No	Vibration	Flight Test			

Airworthiness Requirement	Change from CP Rev. 0	Subject for Compliance or Documentary Proof	Form of Substantiation	DOT	DAR	Comments
Subpart C		Strength Requirements				
27.301	No	Loads – Air Drag Loads	Analysis			
27.301	No	Loads – Inertia Loads	Compliance with 27.337 and 27.561			
27.303	No	Factor of Safety	Analysis			
27.305	No	Strength and Deformation	Analysis and Test			
27.307	No	Proof of Structure	Analysis and Test			
27.337(a)	No	Limit Maneuvering Load Factor - Positive	Analysis and Test			Critical load factor in downward direction.
27.547	No	Main Rotor Structure	Flight Test			See comments above
27.561	No	Emergency Landing Conditions	Analysis and Test			
27.561(b)(3)(i)	No	Emergency Landing Conditions – Up	Analysis and Test			
27.561(b)(3)(ii)	No	Emergency Landing Conditions – Forward	N/A			Forward deflection or failure of basket poses no threat to occupants.
27.561(b)(3)(iii)	No	Emergency Landing Conditions – Side	Analysis and Test			
27.561(b)(3)(iv)	No	Emergency Landing Conditions – Down	Compliance with 27.337			27.337 Maneuvering Load is Critical.
Subpart D		Design and Construction				
27.601	No	Design	Drawings			Design is conventional.
27.603	No	Materials	Drawings			Materials used are specified in Mil-Hdbk-5J.
27.605	No	Fabrication Methods	Drawings			Design is conventional.
27.609	No	Protection of Structure	Drawings			
27.611	No	Inspection Provisions	Drawings			Design is easy to inspect.
27.613	No	Material Strength Properties and Design Values	Values used as per Mil-Hdbk-5J			
27.625	No	Fitting Factor	Analysis			
27.783	No	Doors	N/A			Installation does not block doors.
27.787(a)	No	Cargo and Baggage Compartments	Compliance with 23.301 through 307			
27.787(b)	No	Cargo and Baggage Compartments	Design			Basket is a closed container.
27.787(c)	No	Cargo and Baggage Compartments	N/A			Cargo is external to helicopter.
27.787(d)	No	Cargo and Baggage Compartments	N/A			No cargo lamps.
27.807	No	Emergency Exits	N/A			Installation does not block doors.
27.1387	No	Position Light System Dihedral Angles	N/A – statement in report			No change from Type Approval.
27.1401	No	Anticollision Light System	N/A – statement in report			No change from Type Approval.

Airworthiness Requirement	Change from CP Rev. 0	Subject for Compliance or Documentary Proof	Form of Substantiation	DOT	DAR	Comments
Subpart G						
Operating Limitations and Information						
27.1505	No	Never Exceed Speed	Flight Test, Flight Manual Supplement			V _{NE} limits as specified in the existing Flight Manual Supplement (110 kts.) Limited to VFR only.
27.1525	No	Kinds of Operation	Flight Manual Supplement			
27.1529	Yes	Instructions for Continuing Airworthiness	ICA Provided			
27.1557(a)	No	Miscellaneous Markings and Placards – Baggage Compartments	Placard			
27.1557(b)	No	Miscellaneous Markings and Placards	N/A			
27.1557(c)	No	Miscellaneous Markings and Placards	N/A			Placard installed on basket lid
27.1557(d)	No	Miscellaneous Markings and Placards	N/A			
27.1581	Yes	Rotorcraft Flight Manual – General	Flight Manual Supplement			
27.1583(c)	No	Operating Limitations – Weight and Loading Information	Flight Manual Supplement			
27.1585	No	Operating Procedures	Flight Manual Supplement			
27.1587	No	Performance Information	Flight Manual Supplement			
27.1589	No	Loading Information	Flight Manual Supplement & Placard			
Canadian Airworthiness Manual Chapter 527, change 527-3, dated 3 January 1994						
527.1093(b) (1)(ii)+(iii)	No	Induction System Icing Protection	N/A	No change from Type Approved configuration		
527.1301- 1	No	Rotorcraft Operations After Ground Cold Soak	N/A	No change from Type Approved configuration		
527.1557 (c) (3)	No	Miscellaneous Marking and Placards	N/A	No change from Type Approved configuration		
527.1581	No	Flight Manual - General	Flight Manual Supplement	SI/Imperial units provided		
527.1583 (h)	No	Operating Limitations – Ambient Temperature	N/A	No change from Type Approved configuration		

APPENDIX B

LIST OF CHANGED DOCUMENTS

Number	Title	Rev (current approved)	Rev (new)	Description of change
SH08-16	Transport Canada STC	4	5	New address, changes below, remove model AS350 D1
SR02680NY	FAA STC	06/08/12	(amend)	New address, changes below
	EASA STC			New
CP940	Certification Plan - Including compliance program	0	1	Shows changes from TC accepted TC accepted CP940 Rev. 0 Shows changes from TC accepted TC accepted CP764 Rev. 0
DCL786-1	Document Control List - Attachment Provisions Installation	3	4	Changes below, new address
78602	Attachment Provisions Installation	0	1	TB (Title block updated for new address), hardware, metric units
78603	Attachment Provisions Installation (Pod Compatible)	0	1	TB, hardware, metric units
ICA764.90	Instructions for Continued Airworthiness	3	4	New address, added instructions
DCL776-1	Document Control List - Short Basket Installation	3	4	Changes below, new address
77601	Cargo Basket Installation	3	4	TB, format, metric units, notes
ICA764.90	Instructions for Continued Airworthiness	4	6	New address, added instructions
FMS764.91	Flight Manual Supplement	3	4	Approval #'s on cover
DCL764-1	Document Control List - Medium Basket Installation	3	4	Changes below, new address
76401	Cargo Basket Installation	3	4	TB, format, metric units, notes
ICA764.90	Instructions for Continued Airworthiness	4	6	New address, added instructions
FMS764.91	Flight Manual Supplement	3	4	Approval #'s on cover
DCL784-1	Document Control List - Long Basket Installation	3	4	Changes below, new address
78401	Cargo Basket Installation	3	4	TB, format, metric units, notes
ICA764.90	Instructions for Continued Airworthiness	4	6	New address, added instructions
FMS764.91	Flight Manual Supplement	3	4	Approval #'s on cover
DCL940-1	Document Control List - X Large Basket Installation	0	1	Changes below, new address
94001	Cargo Basket Installation	0	1	TB, format, metric units, notes
ICA764.90	Instructions for Continued Airworthiness	4	6	New address, added instructions
FMS764.91	Flight Manual Supplement	3	4	Approval #'s on cover

Number	Title	Rev (current approved)	Rev (new)	Description of change
DCL786-3	Document Control List - Attachment Provisions Fab.	3	4	Changes below, new address
78620	Clamp Assembly	3	4	TB, add alternate anodize finish
78621	Clamp Assembly	0	1	TB, add alternate anodize finish
78433	Aft Beam Fabrication	0	1	TB, upper hook , support tube ass'y (item 04), bracket added (item 10), material changed (item 07/08/09/14)
78434	Forward Beam Fabrication	0	1	TB, down tube + pad pads longer, mat'l changed (item 07/08/09/12)
ER764.01	Engineering Report	0	0	No change
TR764.02	Load Test Plan and Report	0	0	No change
FTP764.03	Flight Test Plan and Report	0	0	No change
ER764.04	Engineering Report	0	0	No change
ER764.05	Engineering Report	0	0	No change
	Flight Test Report - Transport Canada	--	--	No change (omitted on original issue)
DCL776-3	Document Control List – Short Basket Assembly	2	3	Changes below, new address
77610	Cargo Basket Assembly	1	2	TB, hinge, h/w p/n's updated, add lid prop drawing 84240
77611	Basket Fabrication	1	2	TB, welding rod for s/s, ref dims added
77612	Lid Fabrication	1	2	TB, # welds, welding rod for s/s, ref dims, bumper holes, detail D
77627	Placard	0	1	TB, logo and address on placard
76421	Hoop	0	1	TB
76422	Attachment Hoop	0	1	TB
69823	Basket Components - Lug	1	2	TB
DCL764-3	Document Control List – Medium Basket Assembly	3	4	Changes below, new address
76410	Cargo Basket Assembly	2	3	TB, h/w p/n's updated, add lid prop drawing 84240
76411	Basket Fabrication	2	3	TB, welding rod for s/s, ref dims added, caps
69812	Lid Fabrication	2	4	TB, # welds, welding rod for s/s, ref dims, bumper holes, detail D
76427	Placard	1	2	TB, logo and address on placard
76421	Hoop	0	1	TB
76422	Attachment Hoop	0	1	TB
76423	Attachment Hoop	2	3	TB, handle provisions added
69823	Basket Components - Lug	1	2	TB
69824	Rim	0	--	Removed, no longer used
49212	Rim	0	--	Removed, no longer used
49213	Lid Brace	1	--	Removed, no longer used

Number	Title	Rev (current approved)	Rev (new)	Description of change
DCL784-3	Document Control List – Long Basket Assembly	3	4	Changes below, new address
78410	Cargo Basket Assembly	1	2	TB, hinge, h/w p/n's updated, add lid prop drawing 84240
78411	Basket Fabrication	2	3	TB, welding rod for s/s, ref dims added
78412	Lid Fabrication	1	2	TB, # welds, welding rod for s/s, ref dims, bumper holes, detail D
78427	Placard	1	2	TB, logo and address on placard
76421	Hoop	0	1	TB
76422	Attachment Hoop	0	--	Removed, not used with this basket
76423	Attachment Hoop	2	3	TB, handle provisions added
69823	Lug	1	--	Removed, not used with this basket
DCL940-3	Document Control List – Extra Large Basket Assembly	0	1	Changes below, new address
94010	Cargo Basket Assembly	0	1	TB, h/w p/n's updated, add lid prop drawing 84240
94011	Basket Fabrication	0	1	TB, welding rod for s/s, ref dims added, caps
94012	Lid Fabrication	0	1	TB, # welds down braces, welding rod for s/s, ref dims
94023	Attachment Hoop	0	1	TB, item #'s, handle prov., cap p/n's
94027	Placard	0	1	TB, logo and address on placard
94030	Hoop	0	1	TB
ER940.01	Engineering Report	0	0	No change
ER842.01	Engineering Report	0	0	No change
FTP940.03	Flight Test Plan	0	0	No change
FTR940.03	Flight Test Report	1	1	No change
	Flight Test Report - Transport Canada	--	--	No change (omitted on previous issue)
	Common Component Drawings and Reports			
49215	Basket Components - Spacer	0	1	TB, material
49216	Basket Components - Spacer	0	1	TB, material
84240	Lid Prop Installation	--	0	New drawing - details were missing from assembly drawings
84255	Handle Assembly	0	2	TB
84261	Handle Bar Assembly	0	2	TB
84262	Basket Handle Provisions Assembly	0	2	TB, lid provisions moved to 84263
84263	Lid Handle Provisions Assembly	--	0	New drawing - gives bracket assembly a P/N
84265	Handle Lever	1	2	TB
84267	Handle Bracket	0	1	TB
84272	Bushing	0	1	TB
36273	Lid Bracket	1	2	TB, alternate 304 stainless material
36274	Bushing	2	3	TB

Number	Title	Rev (current approved)	Rev (new)	Description of change
Common Component Drawings and Reports (continued)				
36275	Bushing	3	4	TB, material specs added, bushing (01) material, tip of support (02) reduced
36277	Handle Bar	0	1	TB
36278	Spring	2	3	TB
36280	Brace	2	3	TB
ER764.01	Engineering Report	0	0	No change
TR764.02	Load Test Plan and Report	0	0	No change
FTP764.03	Flight Test Plan and Report	0	0	No change
ER764.04	Engineering Report	0	0	No change
ER764.05	Engineering Report	0	0	No change
	Flight Test Report - Transport Canada	--	--	No change (omitted on earlier issues)
ER842.01	Engineering Report	--	0	No change (omitted on earlier issues)
DCL704	Document Control List - Modifications	6	9	Changes below, new address
	Open Forward End Modification - B206L/407 Fixed and MD600N only	1	1	Not applicable
70401		1	2	Updated at Rev. 8
70402	Lid Door Modification	3	5	Updated at Rev. 8
70403	Auxiliary Latch Modification			
	Open Forward End Modification - B206L/407 Quick Release only	1	2	Not applicable
70404		2	4	Updated at Rev. 8
70405	Lid Step Modification	2	3	TB, add long and XL configurations
70406	Open Forward End Modification - AS350 and B206B only	0	0	Not applicable
70407	Open Forward End Modification - EC135 only	0	1	Updated at Rev. 8
70408	Installation, Hangar Wheel			
	Open Forward End Modification - B206L/407 Quick Release only	--	0	Not applicable, added at Rev. 7
70411		0	1	Updated at Rev. 8
70428	Assembly, Hangar Wheel	0	1	Updated at Rev. 8
70438	Parts, Hangar Wheel			

MSI 53 – Review of Supplemental Instructions for Continued Airworthiness

APPENDIX A-3 NORMAL CATEGORY ROTORCRAFT – CAR 527

BLOCK 1

Name of the applicant for the design change approval:	Aero Design Ltd.
Description of the design change:	Installation of Quick Release Cargo Basket on Eurocopter AS350 & AS355 Series
Certification Basis of design change and revision date:	FAR 27, Amendment 27-20
CAR Standard A527.1(c) Program showing how changes to supplemental ICA made by the applicant or by the manufacturers of products and appliances installed in the aeroplane pursuant to the design change will be distributed:	Section 0-3 of Supplemental ICA (ICA 764.90, Rev. 6)
CAR Standard 513.05 (1) (g) (iv): Installation Instructions:	Installation Drawing 94001, 76401, 77601, 78401, 78602, 78603

BLOCK 2

Note: Enter "N/A" when no supplemental ICA are needed.

Regulatory Standard Reference Column 1	Design Approval Holder (DAH) ICA Reference Column 2	Applicant Means of Compliance Supplemental ICA Requirements Column 3
A527.2 (a) Manual(s) (a) The Instructions for Continued Airworthiness must be in the form of a manual or manuals as appropriate for the quantity of data to be provided.	ICA ref: Eurocopter AS350/AS355 Maintenance Manuals	Supplemental ICA ref: Single Manual (ICA764.90, Rev. 6)
A527.2 (b) Practical arrangement (b) The format of the manual or manuals must provide for a practical arrangement.	ICA ref: Eurocopter AS350/AS355 Maintenance Manual	Supplemental ICA ref: Arranged in ATA format
A527.3 The Instructions for Continued Airworthiness must contain the following manuals or sections, as appropriate, and information:		
A527.3 (a) Rotorcraft maintenance manual or section		
A527.3 (a) (1) (Introduction) (1) Introduction information that includes an explanation of the rotorcraft's features and data to the extent necessary for maintenance or preventive maintenance.	ICA ref: Eurocopter Description and Operation Manual	Supplemental ICA ref: Section 0-1
A527.3 (a) (2) (Description) (2) A description of the rotorcraft and its systems and installations including its engines, rotors, and appliances.	ICA ref: Eurocopter Description and Operation Manual	Supplemental ICA ref: Section 0-5

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Regulatory Standard Reference Column 1	Design Approval Holder (DAH) ICA Reference Column 2	Applicant Means of Compliance Supplemental ICA Requirements Column 3
A527.3 (a) (3) Control & Operation (3) Basic control and operation information describing how the rotorcraft components and systems are controlled and how they operate, including any special procedures and limitations that apply.	ICA ref: Eurocopter Description and Operation Manual	Supplemental ICA ref: N/A
A527.3 (a) (4) Servicing (4) Servicing information that covers details regarding servicing points, capacities of tanks, reservoirs, types of fluids to be used, pressures applicable to the various systems, location of access panels for inspection and servicing, locations of lubrication points, lubricants to be used, equipment required for servicing, tow instructions and limitations, mooring, jacking, and levelling information.	ICA ref: Eurocopter AS350/AS355 Maintenance Manual, Chapter 12	Supplemental ICA ref: N/A
A527.3 The Instructions for Continued Airworthiness must contain the following manuals or sections, as appropriate, and information:		
A527.3 (b) Maintenance Instructions.		
A527.3 (b) (1) Scheduling 1) Scheduling information for each part of the rotorcraft and its engines, auxiliary power units, rotors, accessories, instruments, and equipment that provides the recommended periods at which they should be cleaned, inspected, adjusted, tested, and lubricated, and the degree of inspection, the applicable wear tolerances, and work recommended at these periods. However, the applicant may refer to an accessory, instrument, or equipment manufacturer as the source of this information if the applicant shows that the item has an exceptionally high degree of complexity requiring specialized maintenance techniques, test equipment, or expertise. The recommended overhaul periods and necessary cross-references to the Airworthiness Limitations section of the manual must also be included. In addition, the applicant must include an inspection program that includes the frequency and extent of the inspections necessary to provide for the continued airworthiness of the rotorcraft.	ICA ref: Eurocopter AS350/AS355 Maintenance Manual, Chapter 5	Supplemental ICA ref: Section 5-1
A527.3 (b) (2) Troubleshooting (2) Troubleshooting information describing probable malfunctions, how to recognize those malfunctions, and the remedial action for those malfunctions.	ICA ref: N/A	Supplemental ICA ref: N/A

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Regulatory Standard Reference Column 1	Design Approval Holder (DAH) ICA Reference Column 2	Applicant Means of Compliance Supplemental ICA Requirements Column 3
A527.3 (b) (3) Removal/replacement (3) Information describing the order and method of removing and replacing products and parts with any necessary precautions to be taken.	ICA ref: Eurocopter AS350/AS355 Maintenance Manual, Chapter 25	Supplemental ICA ref: Section 25-1 thru 25-9
A527.3 (b) (4) General (4) Other general procedural instructions including procedures for system testing during ground running, symmetry checks, weighing and determining the center of gravity, lifting and shoring, and storage limitations.	ICA ref: Eurocopter AS350/AS355 Maintenance Manual, Chapter 7 and 8	Supplemental ICA ref: Section 25-11
A527.3 (c) Access (c) Diagrams of structural access plates and information needed to gain access for inspections when access plates are not provided.	ICA ref: N/A	Supplemental ICA ref: N/A
A527.3 (d) Special inspections (d) Details for the application of special inspection techniques including radiographic and ultrasonic testing where such processes are specified.	ICA ref: Eurocopter AS350/AS355 Maintenance Manual, Chapter 5	Supplemental ICA ref: Section 5-1
A527.3 (e) Protective treatment (e) Information needed to apply protective treatments to the structure after inspection.	ICA ref: Eurocopter Standard Practices Manual, Chapter 20	Supplemental ICA ref: Section 5-3
A527.3 (f) Fasteners, torque values, etc (f) All data relative to structural fasteners such as identification, discard recommendations, and torque values.	ICA ref: Eurocopter Standard Practices Manual, Chapter 20	Supplemental ICA ref: Section 25-12
A527.3 (g) Special tools (g) A list of special tools needed.	ICA ref: Eurocopter Tools Catalog	Supplemental ICA ref: N/A


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BLOCK 3


Note: The statement in block 5 does not constitute an approval of the Airworthiness Limitations Section. Airworthiness Limitations differ from other maintenance tasks, in that they are mandatory, as a direct condition of the approval of the type design. They are therefore referenced directly in the approval document itself. However, they must also be included in the Supplemental Instructions for Continued Airworthiness.

A527.4 AWL - Separate Section 1 The Instructions for Continued Airworthiness must contain a section titled Airworthiness Limitations that is segregated and clearly distinguishable from the rest of the document. This section must set forth each mandatory replacement time, structural inspection interval, and related structural inspection procedure approved under 527.571. If the Instructions for Continued Airworthiness consist of multiple documents, the section required by this paragraph must be included in the principal manual. This section must contain a legible statement in a prominent location that reads: "The Airworthiness Limitations section is approved by the Minister and specifies maintenance required by any applicable airworthiness or operating rule unless an alternative program has been approved by the Minister."	ICA ref: Eurocopter AS350/AS355 Maintenance Manual, Chapter 4	Supplemental ICA ref: Chapter 4
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BLOCK 4 – Applicant Statement of Compliance

The Supplemental ICA referenced above comprises the complete listing of supplemental ICA necessary to show compliance with the regulatory standard that supports this change in type design.	
Applicants Signature: <u></u>	Date: <u>17 July 2014</u>
Applicants Name: <u>Jeff Clarke, Vice President</u>	

BLOCK 5 – Minister's Statement of Acceptability

The design change is adequately supported by existing ICA and/or supplemental ICA, as identified above and is acceptable to the Minister.			
Reviewer's Name: <u>JACK STAAL</u>	Phone # <u>180-495-5227</u>	Email: <u>jack.staal@tc.gc.ca</u>	Mail Routing Symbol: <u>RAX1</u>
Signature: <u></u>	Date: <u>Sept 8, 2014</u>	NAPA Number: <u>C-14-0836</u> <u>(C-14-0718 OLD)</u>	